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ABSTRACT

Workshop proceedings in Fresno, California, concerning the development of the Management Approach to Teaching Consumer and Homemaking Education (MATCHE), a preservice home economics teacher education curriculum design, are presented in this report. Presentations from the workshop include unique and timely competency-based individualized instruction programs; validation techniques for curriculum development; philosophy of three strands of MATCHE; and strategies of teaching and evaluating for individualized programs. Also in this section are group presentations concerning the subject areas of MATCHE learning modules: Core: consumer approach; life-styles and the consumer; community consumer resources; housing; and human development. Appended are the program of workshop activities, why MATCHE is needed now, how it can be used, content validity of MATCHE modules (in the form of a workshop-participant questionnaire), learning activities in consumer education for MATCHE students, a rating device for participation as a group-activity member, a schedule of events for the MATCHE II seminar, and lists of participants at seminars in San Francisco, Long Beach, and Fresno. (Other area workshop proceedings [CE 019 896 and CE 019 898-899] are also available, along with the resulting learning modules [CE 019 901-967] and strategies for tying MATCHE to FHA-HERO [CE 019 900].) (CT)

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MATCHE

MANAGEMENT APPROACH TO TEACHING CONSUMER AND HOMEMAKING EDUCATION

PROCEEDINGS

MATCHE II WORKSHOP

Fresno April 5-6, 1976

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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OVERVIEW OF WORKSHOP

by Dr. Gwen Cooke

Many of the plans and activities for the MATCHE II project were based upon the findings and recommendations made by the evaluator of MATCHE I project (1974-1975).

In the summary the evaluator stated: "While the overall consensus of opinion among workshop student participants, workshop leaders, and program coordinators indicated the workshops were highly successful, it is clear that there is a need for additional in-service before effective implementation of MATCHE can be realized."

"Sixty-two percent of those responding to the follow-up questionnaire requested on-site technical assistance, while 28 percent requested resource material summarizing the in-service program. Additionally, 68 percent of the participants indicated an interest in attending another workshop where additional time would be given to the subject matter of MATCHE."

Specifically, it was recommended that "(1) In-service workshops be planned to include administrators and teacher educators from four-year institutions as well as teachers of community college classes. Such workshops should be 'process' workshops resulting in a product design for infusion of MATCHE concepts into particular program components. (2) A cadre of trainers be identified and trained to provide on-site developmental and technical assistance to requesting institutions."

To carry out, in part, the recommendation for additional in-service workshops, two locations, San Francisco and Long Beach, were selected for local one-day in-service seminars. All teacher educators and subject matter specialists from the California State University and Colleges system and

private institutions were invited to attend. Plans for the oneday meeting included:

- presenting a comprehensive review of all aspects of MATCHE;
- demonstrating procedures used in updating and expanding MATCHE modules in the human development and housing areas;
- reviewing instruments prepared for validation of revised and expanded modules;
- seeking assistance with validation of specific modules.

An overview of MATCHE was presented by Dr. John Boogaert using the slide presentation, "An Introduction to MATCHE," developed in 1975 as a part of the MATCHE I project. Mrs. Pat Hennings, Dr. John Boogaert, and Miss Nancy Winston, CSUF instructors, were responsible for the expansion and revision of MATCHE modules in the two areas of home economics - housing and human development. Dr. Boogaert and Mrs. Hennings served as discussion leaders for the seminar. Each explained his or her assignment and approach used in revising and expanding MATCHE modules in the three strands - Consumer Approach, Occupational, and EDA.

The seminar participants reviewed briefly the four expanded modules available for discussion. The discussion was a practical means of obtaining reaction. The participants not only gained insight into purpose and process of individualized modules, but contributed by suggesting additional resources, optional activities and/or clarification of the module overview and the lesson narrative. There was a good exchange of philosophy and ideas regarding methodology in addition to use and implementation of MATCHE materials.

Today, for this workshop we will continue with the review of additional revised and expanded modules. Dr. Margaret Barkley will set the stage by reviewing with us "Unique and Timely Competency-Based Individualized

Instructional Programs." She will serve as one of the group leaders for the work sessions on modules. Pat Hennings and John Boogaert will be the other two leaders for work sessions. In addition, Dr. Terry Newell will explain a plan for validation of the module and will ask your cooperation in obtaining feedback. With these leaders and your participation, we are sure to reach the goal of the workshop--"To assess and advise on the expanded modules in Housing and Human Development and to validate the content of this MATCHE curriculum."

UNIQUE AND TIMELY COMPETENCY-BASED INDIVIDUALIZED INSTRUCTION PROGRAMS

by Dr. Margaret V. Barkley

Today, I am not going to spend any time on talking about why MATCHE and why competency-based individualized programs in teacher education because Dr. Alberta Dobry did a beautiful job of explaining the sociological reasons behind MATCHE. I strongly recommend for your reading, WHY MATCHE NOW from the MATCHE I Workshop (see Appendix B). Today, instead, I am going to review some of the basic assumptions behind individualized competency-based programs. Everyone talks about individualizing instruction, but few educators give full support to the concept, largely because they really do not know what the full scope of individualizing implies, and they do not understand procedures to use in implementing the concept. Other terms which are often used somewhat synonymously with individualizing are "personalizing education" and "adaptive education," although there are fine distinctions made among these three terms. Individualization is based on the concept stated in the A.S.C.D. yearbook, INDIVIDUALIZING INSTRUCTION (1964), which states, . . . "education should be expected to increase rather than narrow the range of differences among learners." When teachers accept this idea they try to devise ways of finding differences in each student and responding to these variations.

The concept of individualization is not new. Walberg stated: "History indicates that what appears new today is usually either a new combination of ideas or a revival of older patterns with technological innovations" (Talmage, 1975). The Winnetka and Dalton Plans were used during the 1920's, but both plans seemed to fail because they were too future oriented to adult living rather than being concerned with relevance for students' lives at the present time. During the 1930's Dewey emphasized a child-centered

individualized instruction using a pragmatic and experimental approach to develop a successful social being. It was probably the abuse of Dewey's ideas by the "progressive educators" which caused his ideas to be discarded for the most part. The philosophy of the British Infant School, where the concept of teaching is geared to the development of the child in a relatively free atmosphere, has had impact on individualization in the United States, especially for the elementary years.

The current individualized movement, according to Cross (1976), seems to be a blend of the behavioristic point of view with stress on the application of scientific principles to improve the teaching-learning process and the humanistic point of view which calls for personal attention and human warmth. There is still, however, a great deal of conflict between the two psychological points of view and within each school of thought.

In the humanistic or personalized instruction the extreme radical approach on the continuum holds that "groups cannot learn anything, only individuals can," as reported by Lapp (1975). Schools operate only on the basis of tutorial arrangements based entirely upon the interests of individual youngsters. Each person creates his own perspective toward life and learning, and the teacher does little but watch maturation. The student does not necessarily need either mastery of, or even acquaintance with, all of the conventional fields of study but may become very specialized in one field, perhaps music. Some educators who use this mode of operation believe that mastery of one field of study will enable the student to better understand other fields of study whenever that becomes necessary. Also, these educators believe that it is better to have in-depth comprehension of one field rather than having a student dabble in all fields and never understand any one of them fully. Also, there is faith in a student's ability to select profitable areas for investigation.

At the other end of the continuum, the more moderate humanistic viewpoint, reports Lapp, is concerned that students should not be categorized, and artificial barriers such as grouping into grade levels and homogeneous grouping should be replaced with a nongraded system where students progress at their own rates of speed. These humanistic educators would do away with rigid behaviorally stated objectives with criteria specified, and they would abolish grades. Respect and consideration would be given to individual interests and personality differences of both students and teachers.

In a comparatively recent research development, the humanists are attempting to match teacher style with a comparable student style. Students who learn best with a well-organized, systematic, mildly authoritarian teacher would be matched with a teacher who would limit the topics studied and would not permit uninhibited individual initiative. In contrast, other students would be matched with a teacher who would encourage the students to explore their interests and little preplanning of activities would be done. This type of teacher would assist and guide without imposing material on the learner.

The problem with matching personalities is that it is almost impossible to establish a list of personality variables that makes a difference. Also, it is difficult with present assessment procedures to accurately measure the variables. There is also the danger that students will not be able to handle the situation if they encounter stress or individuals who think differently from themselves. Most of the humanistic educators at either end of the continuum would agree, however, with Hilgard (in Cross, 1976) that teachers need to help students to initiate inquiry, to gain favorable self-images, and to effectively participate with others.

Perhaps those of you who believe with other critics that the humanistic educators are too permissive need not worry too much about the humanists taking over classrooms for Cross (1976) reports that the behaviorists are clearly dominating the educational scene. Most individualized programs have behavioral or performance objectives, the behavioristic principle of reinforcement is being applied, and small packages of clearly specified learning tasks are being used.

Let's now consider some of the basic principles that seem widely accepted as essential ingredients for different versions of individualized programs. The implementation of these principles may vary from program to program and also the interpretation may be somewhat different. Some of the principles with comments about them are:

1. The student is active in the learning process rather than passive. Physical manipulation, as well as active mental activity, is involved. Institutions that have been able to man open laboratories and large learning centers are most successful in actively involving students in the learning process. A relatively new development is computer-assisted instruction which seems to keep the interest of the student, provided the programming is relatively complex.

2. The teacher becomes the facilitator of learning and assists students in realizing their goals. The teacher leads the students into diagnosing their goals, suggests available resources, assists in setting up activities which lead to the fulfillment of the goals, and then evaluates with students the progress made. At first glance the teacher's role may seem easy, but in reality the teacher must have a large number of resources available for use; and it is sometimes difficult to keep in mind the individual needs of students and to respond to these needs. Goodland cautions (in Cross, 1976)

that teachers may not be able to be productive in individual counseling with students for long periods of time because individuals seem to need a considerable amount of routine between creative efforts. Keuscher (in Palardy, 1975) indicates that the teaching role means listening to students much more than they formerly did, observing students more, and permitting students to incorporate their own needs and interests into the program.

3. Students are allowed to proceed through materials at a self-determined pace that is comfortable for them. This principle is also called "rate tailoring" and is the principle being most widely implemented in individualized programs. Self-pacing is easy to achieve with reading materials but difficult to do with lectures, group discussions, films, and other teaching strategies. Students that are not highly motivated often find it difficult to discipline themselves to do the work when pressure of time is absent. Some suggestions reported in Cross (1976) indicate that one of the successful practices to overcome procrastination is that the first units should be short, interesting, and relatively easy so that students get a good start in the course. Requiring students to come to class to study during the first units provides a positive start. Also setting an early deadline for the completion of the first unit gets everybody started. Sometimes a greater reward in the form of grades is awarded for those students turning in their units early in the semester. Other programs provide extra tutoring assistance for those students who have not turned in work, and they are offered this help via a postcard. A Harvard physics program used small unit tests and period review tests on the basis that serious studying is accomplished before tests.

4. Students should be able to work at times most convenient to them. With quarters or semesters as part of the traditional college setting, students do have time pressure on them. With the exception of the library, many

learning centers operate because of economics on an eight to five schedule. Especially for the students that must work to go to school, these hours present an obstacle to using the materials and laboratories. Some university libraries are maintaining media centers, so this is a step in the right direction.

5. Students should begin instruction in a given subject at the level appropriate to their past achievement. "This concept," states Mitzel (in Palardy, 1975), "makes the assumption that progress in learning is linear and the main task is to locate the learner's present position on a continuum. Once properly located he can then continue to the goal." Mitzel does not believe that this assumption is true for all subjects, although it may be appropriate for such sequential subjects as mathematics and foreign languages. The content in human development in home economics is one that does not seem to lend itself to the linear continuum.

The college advanced placement is based on the linear concept with the idea being that students should be permitted to use their secondary school achievements to advantage by being placed in advanced classes.

6. Learning difficulties that are inhibiting progress in learning can be identified and corrected by remedial instructional units. This principle implies that evaluation procedures can identify whether or not a student has reading difficulties or lacks the ability to verbalize, to do mathematical computations or other defined skills so that remedial measures can be implemented. Some other problems such as poor study habits and aspiration levels may be very difficult to analyze. It is important, however, that this principle be applied in working with culturally disadvantaged students in the college environment. It may be very important to provide emotional support and added help to these students if a program is individualized, or they may

fall by the wayside. In a few instances a decision may have to be made as to the desirability of encouraging a student to remain with a program when his/her ability seems not to warrant the effort. In a teacher education program, special cognizance must be taken of low-producing students because of the great demands made of teachers these days. Also, colleges may not be doing a favor by keeping these students if they are unable to obtain a position when they complete their schooling. The decision will probably be based on the affective behavior of these students.

In using the MATCHE materials with returning students who have been out of college for a few years, modules may have to be developed to update content. It is so easy to become outdated in nutrition, textiles, and even child development research findings, so that it may be necessary to develop additional modules for these students so they have adequate background to proceed.

7. The learning environment will have a variety of instructional media from which to choose. The idea behind this principle is that students have different learning styles and will instinctively choose the medium or combination of media that will facilitate their learning. Research, according to Mitzel (in Palardy, 1975) does not necessarily support this viewpoint. Individualization is not an inexpensive process. As far back as 1968 Esbensen (1968) suggested that each teacher needed an initial budget of $2,000, plus another $1,000 the second year, to implement individualized instruction. With the addition of the cost of a computer terminal, the bill would be even higher. As a bare minimum, the program needs to have available a tape recorder, overhead, filmstrip projector with cassette or record player. Also, an eight-millimeter film projector is most helpful in showing film loops which are so important to use in getting across single concepts. Many schools may already

have some of this equipment, so the major cost will be buying materials or paying for time to develop material that can be used in individualized programs. Few teachers can develop the needed materials and occupy a full-time teaching role. Teachers can have more materials available to students if they are willing to share materials with each other, and students themselves can develop some of the materials. Those teachers that are willing to let students contribute materials are surprised at the quality of the work produced. A word of caution is appropriate, however, for teachers must be careful in the selection of some of the commercial material on the market that advertises the materials are for individualized programs for some of them may not be productive to use.

Providing a variety of learning activities for students dictates a different type of classroom environment than the desk and textbook-dominated room in use now, states Keuscher (in Palardy, 1975). Most of them are so tidy and formal that they bore the teacher as well as the students. "Chalk and talk classrooms," one visiting British educator dubbed our classrooms.

Students must learn to use a variety of resources, many of them outside the formal school environment. By students using community agencies our public also becomes informed about what the educational process is trying to accomplish.

8. Learning is broken into small units, often called learning modules. The size of the modules may vary according to the age and motivational level of the students using them. Some authorities advocate approximately fifteen units per semester for college students. As I previously mentioned, the beginning one should be relatively short in length. Dr. Dobry did an excellent presentation on modules in MATCHE I WORKSHOP, so again I recommend you read that presentation for an in-depth comprehension of modules (see Appendix C).

9. In most instances, individualized programs are competency-based. One definition of "competency" is that it "is an attitude, behavior, skill, or understanding demonstrated by a participant at a specified performance level. A competency is broad in scope," states the A.H.E.A. publication, COMPETENCY-BASED PROFESSIONAL EDUCATION IN HOME ECONOMICS (1974). Palardy (1975) indicates that the learner must be able to demonstrate mastery or attainment of specified criteria. These criteria can be stated so that they include areas in the cognitive, affective, and psychomotor domains and are suitable for preprimary to graduate students. Time is not a limiting factor in CBE, and learning is not in the same rote way as in traditional education. It does imply, however, that detailed description of the behavioral outcomes for the learner be specified. Mager (1962) states that these outcomes, also called behavioral objectives, performance goals, operational objectives and instruction objectives, need to meet three criteria: (a) the behavior itself must be identified, (b) the important conditions under which the behavior is to occur must be defined, and (c) the criterion of acceptable performance must be specified.

Palardy and Eisele in Palardy (1975) indicate that in a competency-based program, there are required objectives which must be met by everyone. But there are other objectives, all of which are considered important, but none of which are considered to be as vital as the required ones. From the non-required list of objectives, each learner has the freedom to choose and negotiate a program for himself/herself. If the school or discipline does not have objectives for a particular area of study, the student becomes involved, along with the professional staff, in designing learning modules in that area. The extent of the learner's involvement will depend upon the ability level, interests and age level of the student.

A competency-based program should be so organized and managed that all persons concerned with or affected by the education of learners share the responsibility for it. Parents, community groups and institutions, teachers and learners should be involved in the design and implementation. Also, CBE should be organized and managed so that there is continuous evaluation and revision. Careful evaluation of the objectives should be a continuous process, to make sure that they are not irrelevant or that large segments of the educational process are not neglected by making the objectives too specific and trivial.

10. The mastery concept is implemented so that if the learner does not master the concept at first, other learning activities are offered until s/he demonstrates adequate performance. According to Bloom (in Block, 1971) 95 percent of the college students can learn a subject to a high level of mastery if given sufficient learning time and appropriate types of assistance. Carroll (in Cross, 1976) concludes from research studies that the bottom percent of the students will take about five times as long as the top 5 percent of the students. McCausland and Steward (1974) found from a research study that students seem to gear their aspirations and their study habits to their ability levels. If one group had lower ability than another group but both had the same aspirations, the group with lesser ability worked harder than the other group to meet the aspiration level. Block (in Cross, 1976) found in a research study that students who learned one task well took significantly less time to learn a related task than those students who had not learned the initial task at a high level of mastery. Perhaps this study indicates to educators that they need to stress in-depth mastery toward a few objectives and then students will be in a position to choose other objectives for themselves.

11. Students receive feedback and evaluation on a regular basis. This is the reinforcement principle operating, and indicates that the college midterm and the final examination are inappropriate because they may cause students to proceed through learning sequences with inadequate understanding of the concepts involved. By the time the student receives the feedback from the midterm, it is too late to go back to clarify basic information. Instead, individualized programs attempt to build in-progress evaluation devices so students can check themselves. Mitzel (in Palardy, 1975) reports at Penn State that they are trying different patterns of reinforcement. Some students do best by receiving adult approval and others want more tangible rewards in the form of tokens. Some students respond best to competitive situations in which they are judged superior or inferior to other students. It is important to discern through counseling and observation which technique of reinforcement operates best for a particular student.

Individualizing teaching is a matter of degree rather than an all-or-nothing endeavor. Teachers individualize to some degree when they make it possible for students to make choices. If I am reading THE RISE REPORT (1975) correctly, you in California are forced into individualizing to a greater extent. A few excerpts from the report which seem to mandate individualization are:

> If each learner, with different interests and abilities, is the primary client of the school system, and if the learner's needs are its primary concern, it follows that instruction should become truly personalized and responsive to individual differences.
>
> In a personalized system where the learner is the primary client, the success or failure of all learning activities and services should be measured in terms of their ability to spark the mind and satisfy the educational needs and objectives of each learner.

> Schools must also free the learner--as well as the educator--from the inefficient system of equating learning with time spent in a classroom. Such freedom can be achieved by relying on demonstrated proficiency as the basis for awarding credit and gauging progress. This reliance recognizes what an individual learns is considerably more important than how long he/she is taught. It further recognizes that learning is a continuous process and that learning rates differ.
>
> In a system that relies on demonstrated proficiency, the strengths and weaknesses of each learner are assessed, and an instructional program is tailored to meet identified needs. Each learner spends only as much time as necessary to reach specified standards and is able to check his/her progress systematically.

Since individualized education is going to be a must in secondary schools, I am very excited about MATCHE because I realize that home economics education students must encounter individualization at the university level before they are willing to attempt to teach in an individualized program. If students only hear lectures, they will model their teaching after their experiences. Also, when we hear about some of the exciting individualized programs at the elementary schools, we must be cognizant of the fact that students may find secondary and college programs very stifling unless they are individualized.

Again, I would like to suggest Dr. Dobrey's HOW MATCHE CAN BE USED for reading to see how to implement MATCHE in your own situation (see Appendix C). I, along with Von Haden and King (1974), believe that because of practical limitations in resources, in the amount of time available, and in the student himself or herself, the ideal of complete individualization will not become a reality. Also, it would be impossible for the teacher to identify and diagnose all the difficulties of students and make provisions for meeting these needs. Individualization, however, can be implemented to some degree in every classroom whether the classroom setting is a self-contained,

open-space one, a departmentalized program, or a team-teaching situation. It takes a great deal of work on the part of the teacher but usually leads to more personal and professional satisfaction because of the enthusiasm of students and the successes they enjoy. The focus must be on learning rather than teaching and involves a commitment on the part of the teacher and students. Confidence in the ability of students to direct their own learning is crucial.

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VALIDATION TECHNIQUES FOR CURRICULUM DEVELOPMENT

by Dr. Terry Newell

Today, I'd like to review our philosophy toward the evaluation of the MATCHE modules and the MATCHE project and then give you an initial introduction to the information we have available. At this point in the development of the MATCHE project we are still in the beginning stages of the evaluation. Hopefully, most of you realize that the validation process is not something that necessarily occurs after the project has been completed. Evaluation is an ongoing process; we are continually trying to monitor the progress that we are making, trying to obtain as much feedback as we can from those teachers who will be using the modules, and from those who will be the consumers of the modules, the students.

I greatly enjoyed Dr. Barkley's summary of individualized instruction. What was particularly interesting to me was the idea that individualized instruction combines both the humanistic approach and the behavioristic approach. The two seem to be rather dichotomous, and at least some educators that I know get into rather violent arguments about which is the best. Unfortunately, from the point of view of evalution, there doesn't seem to be the same dichotomy. I am not really familiar with a humanistic approach to validation, although I think many of you in the audience would wish that perhaps such a thing were available. Unfortunately, with my background and training and my empirical bend as a statistician, my approach tends to be within the behavioristic point of view. At the same time, in working with the people on the project, I am trying to maintain at least an appreciation for, and hopefully understanding of, the humanistic approaches and feelings that would enter into this particular project. Also, in just looking at the

overall MATCHE project, the MATCHE approach itself is a very highly structured, highly organized approach to education.

Given the development of the modules using behavioral objectives, the way in which the modules are to be used, and the concept that there are various entry points to the modules and there are various feedback points to the modules, one might think it must be really easy to evaluate the MATCHE project. But, I am learning that there often is a big gap between theory and reality.

With that as an introduction, what I would like to do today is outline four rather global, basic areas of the validity or the evaluation of the MATCHE modules and the MATCHE project.

The basic consideration in terms of trying to look at the project is to focus on the validity of the MATCHE modules. Currently, seven modules of the 21 modules to be expanded, have been developed; two others that were written last year are in the process of revision. The initial outline I am going to give you, then, should be applied to each of these modules. That, in itself, is a fairly large task.

The first thing we should look at in terms of evaluation would be the behavioral objectives. This seems to be a very natural starting point, since they form the basis of the whole MATCHE project. We need to look at the behavioral objectives and come up with a criterion, some way of measuring the objectives themselves. My approach to this has been to attempt to treat the objectives as quantitative, that is, some students will meet the behavioral objective to a greater degree than other students. Toward this end we are using the pretest and posttest as the measure of the behavioral objectives.

Yet, in talking to some of the people who are trying to write the modules, they feel there is an element of subjectivity in the objectives.

Some objectives seem to be fairly straightforward; others, however, certainly leave a lot of leeway. This is not unreasonable since, as Dr. Barkley pointed out, you can have behavioral objectives that are so objective they are trivial.

With respect to the validity of the MATCHE project, the first thing we have to look at is the content validity of the module itself. Most of you are familiar with the concept of content validity, which basically asks, "Is the information in the module appropriate to the behavioral objective?" We have developed a questionnaire or a checklist for each of the modules, and some of you have already been exposed to it and have returned it with your feedback. This afternoon at the workshops you will also be using our Content Validity Questionnaire (see Appendix D). The idea behind having professionals in the field give us some feedback is obvious: you are the people who are going to be using the modules. We can read these modules, discuss them among ourselves, and yet, it is clear we have to have the widest possible feedback as to how good you think these modules really are.

The next aspect of the validity of the MATCHE module is the validity of the pretest-posttest. From my point of view, the pretest-posttest serves as a very important aspect of the module. The MATCHE approach calls for a pretest-posttest that really is a very sophisticated instrument, perhaps more sophisticated than we are really able to produce at this time.

The first point with respect to the pretest-posttest is the types of items and the scoring of the items. If you have already seen some of the MATCHE modules, or when you get them, you will see that the scoring of the items in the tests varies from simple true-false items through multiple choice items to open-ended items where the student is asked to give seven or eight possible responses.

From my point of view, it would be easiest if everything were true-false and multiple choice. Then I could get a nice score, calculate means and standard deviations, and do all sorts of statistical manipulations. Yet, clearly this is not always appropriate. Some MATCHE modules have semi-objective items. So we need to provide as clear a scoring key as we can for these items.

The second point with respect to pretest-posttest has to do with the content validity of the test itself. We are trying to ascertain in the questionnaire if you feel that the pretest-posttest adequately measures the content of the module, and if it adequately measures the behavioral objective.

The third aspect of the pretest-posttest refers to the reliability. Eventually, we should get some indication as to whether or not the pretest is a consistent measuring device. There are two classic ways of measuring reliability: the test-retest method, in which the test is simply given to the same group of individuals without any intervening instruction, and the split-half approach, where the test is divided into two more or less equal sections. We plan to use both approaches once we start the actual field-testing phase of the modules. One question we thought about was whether or not to have different tests, one test as a pretest and an equivalent form as the posttest. We dropped this idea because of the sheer labor involved. Probably, for all the modules, the same test will be given as a pretest and as a posttest.

Another consideration was the length of the test; and among the different modules the test lengths vary rather widely. One test runs five or six pages, another is only a one-page test. To collect the basic pretest information then, different amounts of time will be involved.

A third point with respect to the validity of the modules is the question of whether or not the module itself leads to the acquisition of information. After the student has been exposed to the module and has worked with it, does the student know anything more than he did before he started the module? Has the behavioral objective been met? To this extent, the design of the MATCHE process is fairly clear-cut. What we plan to do is simply use the pretest posttest. Students will initially take the pretest, will go through the module, and then take a posttest. With that fairly simple sort of design, the pre-post comparison should give us a good idea of whether or not the module itself is engendering any sort of learning in the student.

The fourth point with respect to the validity of the module is a complicated and somewhat ambiguous one. This concerns the actual utilization of the module. In terms of the feedback we have received so far, there is either a misunderstanding as to how the module is supposed to be used, or at least a certain amount of individualization by instructors in use of the module. I think this is something that must be worked out by those individuals that are developing the module and those using the module. If you are developing a module in which you expect the student to utilize all of the activities in the module, to do all of the readings--then you are designing your module from that point of view. But perhaps the instructor expects to pick and choose among the activities. I think you can see from the point of view of the evaluation, we are going to be in trouble because there will be little commonality across individuals using the modules. We won't really know if it's the module that's not doing its job, or if it is that the module is not being used as it was designed to be used. I think it is really important that you contact the individual who has written the module to make sure that you understand the proposed use of it.

Moving on to a slightly higher plane, we hope to look at the validity of the MATCHE instruction and the MATCHE process. This goes beyond comparing the use of the individualized instruction approach of the MATCHE modules to the traditional methods of instruction. To test this we have decided to use the Solomon four-group design. One group will receive the pretest, will go through the MATCHE module, and then will receive a posttest. Another group will not be given a pretest, but will get the MATCHE module, and then will be given the posttest. A third group will be given the pretest, the regular method of instruction for the information if available, and then the posttest. Finally, our fourth group is not pretested, but gets the regular method of instruction and then the posttest. What we are able to do with this design is ascertain whether or not the MATCHE method differs from the regular method, and see whether or not the pretest has sensitized the individuals to the material. Some people have surmised that the student takes the pretest and uses the module to find the answers he needs to pass the posttest. We do have to see whether or not the students are trying to play games with us. The Solomon four/group is able, to some extent, to ascertain this.

One thing we hope to do, probably next Fall, is to set up a study at Fresno, or perhaps a cooperative study across different universities or colleges, which looks at the MATCHE method relative to the regular method. We are also in the process of developing a student satisfaction questionnaire. This will give us the students' side--how well they like the MATCHE process and the MATCHE modules themselves.

My third question with respect to evaluation of the MATCHE project is a somewhat longer range question: is the MATCHE information retained? Once the student is exposed to the MATCHE module, has gone through and has successfully met the behavioral objectives, one might wonder if these are

still viable over a long period of time such as one or two years. Toward this end, we hope to choose a few individuals who go through the MATCHE process and then contact them a year or even two years later if possible, to see what portion of the MATCHE information actually is retained. Also with respect to this point, if we do a follow-up where we are able to obtain information about these students that successfully complete the modules and do retain the information, then a fairly sophisticated statistical technique known as multiple regression could be used. I think we all realize that individualized instruction assumes that students are different. What we might ultimately be able to do is identify those individuals that are best suited to the MATCHE process. Secondly, we might pick out those modules that are most appropriate for certain sorts of individuals.

The ultimate evaluation would come through answering the question: "Is the MATCHE information transmitted and utilized at the societal level?" What we are really asking here, then, goes beyond the classroom. When your students are actually teaching home economics, are they utilizing the material, and is the material actually filtering down to their students? This is a many, many layered process from the initial conception of what the MATCHE process is supposed to do all the way down to the ultimate consumers, the students that are actually being trained and are being given the information. In other words, is the MATCHE approach really filtering down to the people we are trying to contact? I pose this as a question. I do not have an answer for it. The resources that it would take to answer a question at the societal level are very complicated. You have to literally go out into the community and have measures available which might detect such changes.

I would like to also give you just a brief idea of the data that we have available. Please take a look at our content validity questionnaire (see Appendix D).

As examples of how this questionnaire can be used, we have information on two housing modules and two human development modules involving a rather small sample of respondents. The behavioral objectives of the housing modules received ratings of 4.6 and 5.0. The people who evaluated these modules felt the objectives were very clear. The human development modules were rated around 4.0, which means there was less feeling among the judges that the human development objectives were clear. This may be a function of the difference between those two areas. It may be easier to state the behavioral objectives in the housing area than it is in the human development area. In answer to the second question, so far the judges seem to feel unanimous that the objectives are very important.

With respect to the organization of the module (Part II), the ratings have ranged from 3.8 to 4.8--good to really excellent. You will notice that the lengths of the modules vary radically, and so, we would like to get feedback from you on whether the length of the module is appropriate or not. Even though one of the modules is extremely long, most people who rated this module felt that it was an appropriate length. One of the other modules was rated somewhat too short. We are also asking about the vocabulary level for students. Do you feel that the level of vocabulary is appropriate for your students? So far, most of our judges have felt that it is. The ratings are right around 3.0, which is just where we would like them. We are also interested in whether or not you think the references that are utilized in the module will be readily available. Some people felt, at least for the housing module, the references were available, but not readily available. With respect to the activities, are there too many? too few? Here, the responses received were in the middle range.

On the second page of the content validity questionnaire, you are asked to consider actually using the module in the classroom. What percentage of

the activities do you think you would use? Here, answers ranged from 0 percent to 100 percent. Most of the responses at least averaged out to 50 percent. It is important for the people who are writing modules to understand this. If people are only going to use 50 percent of the activities, that is going to influence how the modules are written. Likewise, we would like to know if the range of the activities is too broad or about right. Most people so far thought the activities were about right. Likewise, with respect to the pretest-posttest, we are again trying to obtain some feedback. The ratings on the difficulty of the pretest, so far, have been right around 4.0. That is, the test has been judged neither too easy nor too difficult. Concerning the number of items--this clustered right around the middle. In response to the quesion, "Do you think that the scoring criteria that you were given are clear?", there has been quite a bit of variability. Some people indicated it was too time consuming. Other people felt it was good. They liked the questions and felt the pretest gave them enough guidance so that they could adequately and correctly score the test.

Finally, we have a couple questions on students meeting behavioral objectives upon completion of the module. Here, the range of responses has been from about 3.0 (adequate) to 4.4.

The last question is, "Would you use the module in its present form?" In responding to this question we also need to know if this module is appropriate for your area. Some people said they definitely would not use it because they do not teach courses in which the module would be utilizable. Thus, we do need some indication that if you are not going to use it, is it because it is not appropriate for your field or because you really object to it?

Those people that did give us feedback were very generous in terms of their open-ended comments as to the text of the module and the test itself.

Some people went very carefully through the module and actually wrote in the margins of the modules and sent them back to us so that we could give them back to the people who were writing them. The modules will be under a certain amount of revision. The MATCHE technique calls for feedback, and obviously we cannot revise them until we receive this feedback.

Discussion Period: During the discussion period that followed, there were several questions regarding the validation process and some that related to the MATCHE product. Pertinent information included:

--Participants were concerned with the validation of the modules by specialists in the subject area and nonspecialists. One response to this topic was as follows: "Maybe you need to look at the evaluations from two groups, one group who might be specialists in terms of the content as one kind of response versus a person who is evaluating the module but who may not be a content specialist as another type of response." Another participant felt that perhaps evaluation should be multifaceted and include both frames of reference. Dr. Barkley's response to the specialist versus the nonspecialist question: "You know, I think particularly the teacher educators in the group are in a fairly good position to validate the content. I think this because you have to be a semi-expert in many of the fields in which you evaluate student teachers, or work with in-service people. Then this isn't an impossible task. I think all of us really need to be aware of the total program in teacher education."

--The items of the content validity questionnaire were explored. One participant felt that there were not enough questions included to cover evaluation of the content of the modules. Dr. Newell's responses indicated that at the point evaluation was begun, face validity of the behavioral objectives and

pre- and posttests was assumed and also pointed out the reason behind leaving the questionnaire open ended: "To some extent, we have already obtained a certain amount of face validity with respect to the content of the module. The content was dictated by the behavioral objectives to a large degree. The content of the pre- and posttests has been dictated by what actually appeared in the module. So, what we are trying to ascertain is that aspect of the content validity concerning the use of the module rather than whether or not the module is actually covering all the materials that you would like it to cover." "One of the reasons we left the questionnaire open ended, is that the same questionnaire has to work for all the modules so we can try to compare them. And some of the people who are looking through the modules are not necessarily experts in the field, but yet, we feel in many respects these are people that might ultimately be using these modules as well. So, we want to know if we are communicating to them. Does the module look as though they can utilize it? We left room for your written comments about the text and the module, and there is where the information about your feelings about the content of the module can be given." Dr. Newell also stated in completing the open-ended questionnaire the evaluator should identify the units that do not have enough activities, and how MATCHE would be used at specific universities, i.e., part of a module in one course, part in another, the total module used in one course, etc.

--Questions were raised about the relative lack of affective objectives in the modules. Dr. Barkley stated, "I do like the McKnight objective, or the scheme that shows that you really cannot have a high level cognitive objective unless the affective goes along with it. Granted it is very difficult to design affective objectives. However, if the objectives reach the high

cognitive level, they will probably include the affective domain. We just cannot state them as well because behaviors differ so among individuals."

--The question was asked regarding evaluation: how can different universities with differing requirements, course offerings and different students be compared (i.e., comparing the methods of instruction)? Dr. Newell's response: "The method of instruction may be appropriate to certain subgroups, and I am not claiming that the MATCHE process is necessarily going to work for all students--that is one of the things we are going to look at. We are going to look at background variables and ultimate performance. As an extension of the Solomon four-group design, we will look at the contribution of age, background, experience, grade point average--those contributing factors. With respect to the design itself, it would have to be imposed within the same educational institution. You could not give the pretest, the MATCHE process, and the posttest at one university and then use the regular instruction at a different place and compare these results. Technically, what is needed is randomized assignment to the four groups. Randomization solves many problems but is hard to achieve."

--One participant expressed concern about the final intent of the MATCHE modules because courses differ from campus to campus. She appreciated the child development and family modules and could see a great deal of use for those, but felt she could not evaluate them unless she understood the purpose. One participant responded: "What we hope is that this might be an additional tool, perhaps a replacement tool that will replace something that you're already doing, that your time will be utilized in another way, instead of the same way that it is being used at the present time. And I think if we take the thought that this is a new approach, it may work in part, it may work in total. But your time will be used in a different way. This is not in addition to, but an alternate approach to, your use of time."

--Another participant expressed concern about the use of MATCHE: "I think that we have to be realistic about how these would be used in the classroom. There may be teachers who would set up the experiences just as outlined in the module. On the other hand, another teacher may wish to develop his/her own approach and may pick and choose activities. I think you need to set up some type of evaluation accordingly." Dr. Newell reiterated that as the evaluator he must try to obtain some sort of commonality across individuals using the modules.

--The importance of feedback was emphasized. It was pointed out that the modules as written are not in their final form, and feedback will be incorporated as it is received. It is extremely important that participants provide this feedback.

PHILOSOPHY OF THREE STRANDS OF MATCHE

by Dr. Margaret V. Barkley

As most of you probably know by now, MATCHE was developed with the Vocational Amendments of 1968 in mind. Part F in that Act mandates that consumer and homemaking programs must integrate consumer education in all offerings in the program, and the MATCHE certainly does that task well. Also, in these modules consumer education has been interpreted broadly so that the activities do not center only on "buying activities." Too often, home economists have been accused of teaching only how to buy. For example, one of the modules which I developed is on Life-Styles and the Consumer--that is certainly not buying. Community Consumer Resources is another one which I developed, and it gives you another aspect of consumer education. I certainly believe in the idea of focusing on consumer education in all of the subject matter areas of home economics--clothing and textiles; housing, equipment and home furnishings; foods and nutrition; management and family economics; and human development. The original developers have been quite ingenious in incorporating consumer education in all of these fields so that it truly becomes integrated.

When I go into the secondary school, I say to the teachers, "Do you teach consumer education?" They say, "Oh, yes, I teach it in foods. I teach kids how to buy clothes by making clothes." These teachers often do not consciously teach consumer education but only touch on the subject incidentally. Then home economists wonder why business education and social studies have taken over so much of the consumer education activity. Those home economists that teach <u>all</u> aspects of consumer education have not made people aware of the fact that they are doing it, so emphasis on consumer education must be consciously stressed in all classes in home economics.

Part B under the Vocational Amendment of 1968 sets aside funds which are concerned with career exploration and career preparation, and implies that a student enrolled in a vocational class at the junior or senior year will receive training for a beginning salable skill. The teacher education program in home economics, therefore, must prepare teachers to teach in these occupational programs. It is toward this end that the occupational strand has been developed. Just as the consumer homemaking programs at the high school level include all aspects of home economics, the occupational programs at the high school level cover all home economics-related occupations. These modules, therefore, incorporate all content areas of home economics in the occupational strand. From observing the teachers who teach the HERO classes at the secondary level, they need the background these modules give. Some teachers, for example, best understand food service while other best understand clothing and textiles. But few teachers comprehend all of the fields in home economics and their relationship to occupational careers.

In the Vocational Amendments, special funds are set aside for offering programs for those students who come from families who are economically depressed. Therefore, the MATCHE modules are planned to provide teacher education students with the background for teaching the classes to the economically depressed. These modules provide an understanding of what type of living environment these students have, and then provide assistance in the content areas.

Lastly, there are suggestions for integrating FHA/HERO into the program. This is very important because the student organization programs in home economics are co-curricular activities, meaning that they should be integrated with home economics classes rather than an extracurricular activity, which is in addition to the program. The new vocational act that is being written now

is strongly emphasizing the student organization programs in all vocational programs. In Arizona, there has been a project which has attempted to give guidance and provide suggestions for integrating FHA into the consumer and homemaking program. It seems to be even more extensive than your MATCHE suggestions, but I believe the MATCHE ideas are excellent in giving assistance to the integration of FHA/HERO into regular classes. In the HERO cooperative program, the HERO chapter is very much a part of the occupational class, and most classes devote one day a week to chapter activities. If only chapter activities are in the instructional class, however, there is not enough time spent on content for the work experience part of the program. In Arizona we think chapter activities are so important that we have developed a leadership manual for HERO students and their advisors. And again, I want to stress that MATCHE recognizes the importance of FHA/HERO by including activities for them in the MATCHE materials.

The original developers of the modules perceived that teacher education students would have two years of content before beginning the modules. It has been suggested that the consumer and homemaking modules be completed by the teacher education students before the other two strands are considered. I believe that there are perhaps a few words of caution in that plan. At present, Congress is working on a new vocational act, and there is a slight possibility that separate funding for consumer and homemaking will not be operative in the new act. If that happens, most of the funding will probably be going into occupational classes, and home economics educators need to establish that many of the skills taught in the consumer and homemaking classes can be transferred into earning a living by making some modification. We certainly do not stress this enough in our consumer and homemaking classes. For example, safety in the kitchen and sanitation of food are needed at home and also in the commercial establishment. But do we ever make that transfer

for our students when we teach safety in the kitchen? I am afraid that we do not consciously call it to their attention. You hem a garment in a similar manner in an alteration department as you do in making a garment to wear yourself. A lot of students earn their way through college in a dormitory by practicing the skills that they learned in their consumer and homemaking classes.

Do we really teach production skills in consumer and homemaking? These are very important if students enter occupations in home economics. The florist, the food service people, the clothing people all stress the need for introducing students to production skills, even if on a limited basis. One can use production skills at home by preparing a week's lunches for school or work rather than by preparing lunches daily. We can also use production techniques in constructing several garments at a time. Bathing several children at the same time can utilize production skills.

Do we ever introduce the idea of quality control in a consumer homemaking program? Quality control can be used at home. Modifying portions for children is an example of quality control. Now, I've been working very hard in my occupational class to help students to perceive how they can help their students carry over skills learned in consumer homemaking into the related jobs. Frequently, the skill must only be modified. Students who have consumer homemaking classes seem to progress more quickly in the occupational programs. Also, the principles of getting along with others apply to the home and to the job in much the same manner; but we do not always mention that to students. I believe we must make our students aware that we are teaching them both family and job-related skills. Another example is that supervision skills used with your own children apply equally well to children in the day care center. I do realize, however,

that we do need a separate class for those teacher education students who plan to teach in the HERO program, but I do think that we could make the transfer from consumer homemaking more easily into the occupational strand.

Also, with the scarcity of positions, more of our beginning teachers are going to be teaching in inner city schools and other programs for economically depressed individuals. An adult program such as the WIN Program is a good example. This is the work incentive program for ADC mothers. So, perhaps we must consider integrating these modules along with the consumer and homemaking ones. When I looked at the housing and human development modules, I ascertained that the writers have considered the concerns of the lower income family along with other income levels. It seems we need to be aware of the needs of the economically depressed all along the way.

As in any competency-based individualized program, the problem is what is essential for all students? What should be considered to include for mastery and what should be considered enrichment? Perhaps we will be able to address ourselves in a limited fashion to the problem of integrating modules when we evaluate the modules. I am suggesting that we look at all three strands plus the chapter activities together as well as just keeping these separate. I am not indicating that you don't use them separately sometimes, but I'd like also to plea for integration.

STRATEGIES OF TEACHING AND EVALUATING FOR INDIVIDUALIZED PROGRAMS

by Dr. Margaret V. Barkley

Many individuals, lay and professional persons alike, have an immediate picture of a student in a study carrell when the term "individualized instruction" is mentioned. Yes, there may be students studying by themselves but there are many other teaching strategies to use in individualizing, instruction.

In deciding what strategy to use with individual students, first of all analyze with the student what his/her learning style is. Dunn (1972) has a list of "style" elements which might be considered:

Learning Style Diagnosis	
1. Time	(When is the student most alert? Early morning, lunchtime, afternoon, evening?)
2. Schedule	(What is the student's attention span? Concentrated periods of time, irregular, short period of time?)
3. Amount of Sound	(What level of noise can the student tolerate? Absolute quiet, a murmur, distant sound, high levels of conversation?)
4. Type of Sound	(What type of sound has a positive reaction? Music, conversation, laughter, working groups?)
5. Type of Work Group	(How does the student work best? Alone, with one person, with small group, in large team, a combination?)
6. Amount of Pressure	(What kind of pressure, if any, does the student need? Relaxed, slight, moderate, extreme?)
7. Type of Motivation	(What helps to motivate this student? Self, teacher, expectation, deadlines, rewards, recognition, family?)
8. Place	(Where does the student work best? Home [special place there], school, library, learning center?)

9.	Physical Environment and Conditions	(What type of environment does the student need? Floor, reclining, sitting at desk, chair, typewriter, temperature, lighting, type of clothing, food?)
10.	Type of Assignment	(Which type of assignment does the student prefer? Contracts, totally self-chosen, teacher-selected, group chosen?)
11.	Perceptual Strengths and Styles	(How does the student learn most easily? Visual materials, recordings, printed media, tactile experiences, hands-on experiences, multimedia packages, combinations of these?)
12.	Type of Structure and Evaluation	(What type of structure suits this student most of the time? Strict, flexible, self-determined, jointly arranged, periodic, self-starting, continuous, occasional, time-line expectations, terminal assessment?)

Another beginning task for the professor who is implementing individualized instruction is to adopt a management system for the materials available for the respective modules. Wormer (1973) suggests a system for learning packages for elementary schools, and I believe that a similar one might be adopted for your particular program. He suggests first a number or abbreviation for the content area or program code. Since the MATCHE materials are already color coded, you may wish to indicate the color of the strand, plus the particular content area. I have with me a filing system which is a combination of filing systems from the University of Illinois and the University of Nebraska which assigns numbers to content areas and numbers the subtopics. This may or may not be helpful to you, or you may already have a system devised for yourself. Then I believe that you will want to add a number which indicates module to which this material is appropriate. I would suggest that any printed material which comes over your desk should be immediately coded for filing, and a card made for the material which would be filed under the heading of "content reading material." Another portion of the file would contain cards on filmstrips, and they would be coded in a like manner. Tape recordings, films, exhibits, displays, transparencies,

games, case studies, skits, role-playing situations, community interviews, puzzles, and other materials would likewise be coded in a similar fashion. If possible on the card, I would have a short annotation of what the material is like and perhaps its suggested use. Students can assist in developing the file system, and they can add to the annotated cards as they find materials on their own. In lieu of saving library research time, I suggest xeroxing some of the important articles, or portions of books which are suggested in the modules for students to read. They must be returned, however, because copyright laws prevent distribution.

Also, it is necessary to develop a recording system of the modules completed by each student. I would suggest that, if possible, the record of modules completed be kept in public view so other students can determine which students are working on the same modules. They may wish to share ideas. Also, having a record in public view tends to hasten some students to complete more modules. Professors are also aware, then, of students who are proceeding well and those that are in arrears so they can give special encouragement to those who are markedly behind the class. Grades will not be attached to the public record in any manner, and you may even prefer recording by initials only. In that case, other students will have to check to ascertain who the students are.

During the revival of individualization in the 1960's, programmed instruction was used rather extensively. Pressey (in Cross, 1976) began its use in the 1920's with his primitive teaching machine which applied three laws of learning. The law of recency, where the last answer must be the right answer; the law of frequency which implies the right response should be made most often; and the law of effect which says that responses which are rewarded will be repeated, were used in his version of programmed learning.

Skinner adopted the reward and reinforcement idea wholeheartedly and soon had programmed learning permeating education. His idea was to have the program, in small steps arranged in sequence. Test questions were imposed in the program, and these provided the immediate reinforcement and feedback concerning the desired response. Post states that Skinner's rigid adherence to the small steps has led to a feeling of boredom on the part of able students (Palardy, 1975). It has seemingly worked well, however, for some audiences such as newly literate Spanish-speaking hospital workers. To overcome the monotony, branching has been introduced which permits the learners to skip parts of the program if they indicate proficiency or to engage in remedial work if they need clarification on any part of the program.

Programmed learning has worked quite well if the programs are on concentrated background factual material. Research indicates that students take less time than is required by other means. Up to the present, however, little has been done in programming the teaching of concepts, interrelationships and application, probably because good program writers are rare persons. Branching is a very difficult technique to execute, requiring people highly skilled in the logic of the subject matter. Also, an estimated 50 to 75 hours of programming are required for each student hour presented, reports Markle (Cross, 1976). Post feels that programmers should be more experimental, interject humor, and develop larger frames. He predicts that eventually we may have a creator of Sesame Street in programming. Crutchfield (1965) has already used a variation of programmed instruction to teach creativity to fifth and sixth graders, so perhaps there is hope.

To add sophistication to programmed learning, computer-assisted individualized instruction has come into being. Cross (1976) gives a very thorough discussion of computer-assisted and computer-managed individualized

instruction. One well-known one is at Miami-Dade Community College, which has a computer-managed system that analyzes test performance, diagnoses problem areas and prescribes appropriate assignments in a personal letter to the student. Some computer systems can use slide projectors, closed-circuit television, or tape recordings. The possibilities for variety in the communication with students can almost be endless. The human touch can be added by having monitors present while the computer is being used.

Computers in the classroom are only about ten years old and costs are down to $5 an hour, so we can expect many developments in the area. Its greatest strength is in the reduction of time for learning, as indicated by research when compared to traditional methods of instruction. It is especially useful with high ability, creative students who seek problem-solving interactions with computers. It is equally successful, however, with low ability students for they are not embarrassed by holding up other class members when they are slow in comprehension. The most serious limitation of computers many believe is the issue of "education as content" versus "education as process" for students only learn one way of approaching education and do not learn process. For that reason most educators feel that computer-assisted education should be combined with other learning activities.

One teaching strategy in individualized instruction which everyone is enthused about is student tutoring. Thelen (Palardy, 1975) reports that tutoring can take many forms. In individualized programs a particularly successful approach is to take someone who has completed a module and have them assist those who are experiencing problems, helping them individually or in a small group. These tutors may or may not be paid, but usually they receive credit in some form for their efforts. When students who have completed assignments tutor other students, it reinforces the concepts.

Also, teaching is viewed more in a cooperative spirit rather than a competitive one, so learning is viewed somewhat in the same way. Students who have not been particularly good students in classes sometimes turn out to be very good tutors because they can simplify the explanation. The success of tutoring has been especially noteworthy when older students have guided less experienced ones. When tutors are successful, it enhances the self-esteem of the tutors, and engaging in the process makes the tutors feel more a part of the school. Glasser (1969) believes that before a student can earn outstanding recognition, he must help someone else with the learning process. It is important, however, that tutors be given supervision so that the accuracy of their teaching can be evaluated.

Community experiences are another desirable aspect of an individualized program. Interviews with important community resource persons, such as agency personnel who protect consumers, provide enriching experiences for students. I would suggest, however, that the same persons not be interviewed regularly. Instead, tapes of interviews can be placed on file and used by students wanting more information on that particular topic or new persons interviewed. Sometimes it is not just experts that should be interviewed, for a great deal can be learned from talking with average people. A good topic to pursue with a variety of age levels might be "Values Which Influenced Consumer Behavior When I Was An Adolescent." This intergenerational exchange can be rewarding to all persons involved.

If you want to combine job analysis and consumer behavior, send students into the community to observe consumer behavior in a variety of situations. Also have them observe how the employees of the establishment handle consumers. Some suggested observations might be a health clinic or hospital, welfare office, public library, family service agency, a museum, sports arena,

employment office, automobile agency, or a courtroom. Students might be more objective observers if they are not personally involved in a consumer transaction.

Individual field trips can be incorporated in the module, and findings may be shared in a small group or filed anonymously so they can be read by others. Also, surveys made by students can validate or negate generalizations found in textbooks and references.

Gaming is another teaching strategy which we have not explored fully. Such reality games as Consumer, Ghetto, and Life Career have the potential for teaching a great deal about consumer education. Students who play Ghetto can see the futility of life among poverty-stricken individuals. Gaming has long been recognized by educators as being able to generate interest and involvement on the part of students. Dewey, Erickson, and Piaget (Boocock, 1968) have recognized their merit in developing the intellect, and Mead has indicated that games play an important role in establishing the self-identity of an individual. The player's actions are determined by the roles he is playing and the assumptions of what others will do in the game. They socialize, according to Mead, by the process of giving players experience in a number of important social roles, both on an individual and group level. Boocock states that games may be classified according to whether they emphasize:

Skill--The outcome of these games is dependent upon the capabilities of the players (athletics, Jeopardy, drill sessions). Games involving skill reward achievement, encourage individual responsibility, and initiative, but slow learners are often discouraged by the competition.

Chance--The winning of these games is independent of player capabilities. Bingo, card games, and dice are examples, and such games minimize

personal responsibility, skill and encourage magical thinking and passivity. This type of game is most popular among the ghetto population.

Fantasy--High levels of imagination and creativity are involved in such games (Charades, interpretive dancing), and they release the player from conventional perceptions and inhibitions. They must be planned carefully so they have appropriate cognitive content.

Reality or Simulation--These games are extractions from the social environment and are essentially models or simulations from real operations. They have the greatest educational potentials for students to comprehend relationships, problems, motives, and methods of operation. Rewards are given to the participants when they follow the limitations or constraints in the environment. Vicarious experiences make it possible for students to take risks and make decisions without being penalized in real life. Reality games are intended to teach just as they are, and the more tightly the game is structured, even though it is confusing at times, the longer the attention span. Care must be given to withdraw players who become too involved because the game is too like real life to them.

Rice (1974) indicates that even students who do poorly on assignments that require verbal and conceptual skills may do exceptionally well in games, even if these games require verbal skills. Many games are on the market from educational sources which can be used. I'd like to advise that if games are suggested in the MATCHE modules, students be allowed to check out the games and take them home with them so they can play them with friends or family members. Students on the same module might play the game together in the school environment. Rice also suggests that teachers design their own games

once they decide what they wish to accomplish. Actually, all games do not have to be as complex as some of the commercial ones.

Many students do not enjoy working alone but instead are stimulated by interacting with another person or a small group of individuals. Small groups can work out panel discussions to present to audiences, analyze case situations, develop demonstrations, or do experiments together. Group work brings up the matter of evaluation. Do all small group members receive the same grade for their contributions or how do you decide? Since it is difficult to grade individuals, I would suggest a device on which they evaluate each other. If a product is involved, it, too, can be evaluated. It is wise, however, to have criteria clearly delineated before the experience takes place, for the defined criteria also sets standards of expectation.

Grading is a very difficult process when you individualize because mastery implies that everyone receives the same evaluation for reaching the criterion established. Since many institutions of higher education and high schools do not accept anything but a normative grading system, the teacher is forced to make distinctions between students. Some individualized competency-based programs have gone to time as a measure of assessment. If students are able to satisfactorily pass the criterion-referenced evaluation on the first attempt, an "A" grade is assigned. If another attempt is necessary, a "B" is given. If more than two times are needed to achieve the criteria established, only a "C" can be earned. Since self-pacing is established as an important component of an individualized program, the time dimension may be defeating to slow-learning students.

Another method used in assigning grades is on the basis of the quantity of work completed. Students are expected to satisfactorily complete the basic requirements of the course and this earns them a "C". A grade of "B" can only be

achieved if additional modules are completed. An "A" student is considered a superior scholar and should complete additional modules and indicate some leadership qualities perhaps by tutoring other students, preparing presentations to be given to a group, or developing original material. All the "A" assignments must be thoroughly done and indicate an application of the concepts presented in the modules.

Many teachers find it helpful to have students make a contract in which learners set their own goals for a specified period of time. At the end of the contract period, both the student and teacher evaluate the progress. This process assists the teacher in evaluating the ability of the students to do the work within the time frame and whether they need more assistance.

Evaluation has always been one of the most difficult tasks of teaching, and assigning of grades is one of the most disagreeable tasks I do. Evaluation is not easy in an individualized program, so I would suggest you let the students help establish the grading system. I wish we could give a "pass" grade with additional comments; but until we can, any grading system will always be a compromise.

Editor's Note: During her presentation, Dr. Barkley used handouts to illustrate points. See Appendices E, F, G, H, and I.

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CORE: CONSUMER APPROACH

LIFE-STYLES AND THE CONSUMER

COMMUNITY CONSUMER RESOURCES

by Dr. Margaret V. Barkley

The Life-Styles and the Consumer module, which was first evaluated by the group of teacher educators, was difficult to evaluate and revise, probably because it was on an intangible subject. I believe anytime that you have something that you cannot really make specific, then you are going to have difficulties in making concrete suggestions about it. We found in our group yesterday that we were almost expecting too much of the modules for we desired too much in-depth coverage of the subject. We wanted a whole course to be taught by this module. We had forgotten that the students would have background before they came to this module or that they would have an opportunity to reinforce the concepts in other modules in some instances. Last evening, individuals went home and did their homework and came back with different expectations for the modules.

I would like to indicate the process that we used because I think it was as important as our final results. The process that we found to be most usable was to first read the overall objective and overview, and then look at one unit at a time. We looked at the objectives in each of these units. First we tried to do the pretest and posttest, and it was very unproductive because we had to flip back to see what was contained in each of the units. We found that if we studied the units thoroughly first and then did the pretest-posttest, that we were much more productive and were able to assess more objectively. After we looked at the objectives in each unit, we evaluated the activities. And at first when we looked at the modules, we also felt that they were too

superficial; and mine were, for I had not added enough depth to them. One of the things that we did was to add depth so that we could be sure that students would gain the desired level of competency from them. We probably made the most revisions on the pretest-posttest when we considered the total module. In unit one on the Life-Styles and the Consumer module, one of the things we decided is that we had to compare differences and similarities in life-style. And I think that home economics teacher educators are very aware of low income needs. I think it was apparent over and over again that we did want to consider all levels at the same time, and so we needed to go back and fill in some things from the economically depressed modules. We did not want to eliminate them for fear that students would not really see a good cross-section or the continuum. We felt that the economically depressed are those persons that probably need the most help.

In some cases, we made minor modifications of the behavioral objectives or a few were added. The overview and narrative summaries were modified only slightly. In several cases, activities were added which provide choices for students. Sources were added to the bibliography, and I think that there will be some additional ones. At this point, module one, Life-Styles and the Consumer, and module two, Community Consumer Resources, are being revised; and I am going to send them back to the participants who assisted in the revision. If they have further suggestions, they are going to either mail them to Gwen or Maurine or, in a few cases, they may mail them to me.

We did find that a group of eight to ten persons seems to be the most manageable size for work with the module. Yesterday, we had more, and we probably should have broken into two groups if we were really going to do specific evaluation of the modules.

The Community Consumer Resources module was much easier to revise, although we probably revised the objectives more here than we did in the previous one. One of the things we did was to enlarge the scope of the Community Consumer Resources module to include more societal issues in terms of providing or restricting the use of community resources for individuals and families. At present, there is a strong emphasis on how much the public sector should provide for families and individuals and whether or not we are going to be able to afford everything. All that we really want students to do is to identify what issues are involved, and some of the pros and cons, and maybe someday they will be able to make some suggestions, and decide what their position is. Also, in that last module, we went back to the objective and decided that we should help our college students to develop some means of communicating within and without different age groups. This could be the elderly or middle-aged and for all kinds of groups' use of community resources. Many families and individuals do not understand the wealth of resources available to them.

HOUSING

by Pat Hennings

In summarizing the work of our group in housing, I first want to give you a general overview of what was involved in writing the housing portion of MATCHE. Secondly, I want to go over the recommendations that came from the group, and lastly I will try and give you an idea of where we would like to go from here.

I'd like to begin with a quote by Robert Ewald from the book CREATING A HUMAN ENVIRONMENT: "In dealing with shelter, we have a national crisis, not an urban crisis." This crisis knows no economic boundaries, and it affects all segments of our society. We recognize that the crisis embraces persons in institutions, in their homes, and in all strata of our society--the elderly, the handicapped, the single, the wealthy, the poor, and we are recognizing that soon shelter may not be available at any price in any present form. Additional references I used recognized that today's shelter crises were yesterday's potential for change. We in home economics missed dealing with those changes then and because of that we now must face the fact that housing information must be provided to all of the future teachers we educate. As a group of housing educators we do not mean that the student chooses from a home furnishings class or a household equipment class, but that any program definitely offers a housing course that deals with housing and shelter as crisis. We hope that you as a group will leave here recognizing that that kind of a course should be a requirement. We did a survey in our group to find out if a housing class was, in fact, required at all, since Margaret had disclosed that it was not in Arizona; and we found that throughout the state it is not a requirement in every program.

Also, in writing the housing portion of MATCHE, I was trying to take a broad approach so that we were sure that housing covered behavioral issues, societal issues, environmental issues, and economic issues. I think home economics does rather well in dealing with the economic/consumer problems.

In all of the housing modules we have addressed ourselves to some specific problems and have dealt with information which will require continued updating. One of these concerns is crowding, another is pollution problems on all levels--noise, air, visual, water; another is the use of construction techniques which are no longer feasible but continue to be used because of powerful labor unions. Stick shelter needs to be on its way out. We need to be teaching our students about well-designed manufactured housing in all forms. Also, as consumers and citizens we need to be involved in community planning; I think that the modules and the strategies that have been used have really tried to make the students be involved participants in the community whether they stay in teaching or not.

In Fresno, 50 percent of the population makes less than $10,000 annual income. From the Library of Congress study that came out just about three months ago, we recognize that nationally for every hundred families whose incomes are under $10,000 a year, there are only 3.3 shelters available to them. What happens to the other 97 families that need to be housed? For you to use MATCHE then, and to require the housing strand of all your students, you would need to recognize shelter as a crisis.

With that view of shelter as a common starting point, the group made several recommendations. First, we were concerned about developing a teacher instruction sheet that would accompany each strand, and I felt that need early in the Long Beach and San Francisco meetings. A second recommendation was to cross-reference the focus of many of the activities so that perhaps

one activity, such as meeting with the housing authority director, might meet the needs of several different modules. Students might gain information that would pertain to several units at one time and recognize the interrelationship. Also, we agreed that it would require some faculty discretion as far as numbers of units and quantities of modules to be completed. However, the activities as written build on one another, and so if you wish to substitute one, we hope that you would replace it with something that would still have the same focus, because the modules are sequential. Another point brought out in the discussion was that some of the students' time may be wasted in travel during field experiences if they must go long distances. You must assess that for your own community and decide what works best for your students.

We also found that the teacher's role in MATCHE changes. Time available to the teacher, for instance, may increase or it may be utilized in another way. We can see that the teacher may no longer be the provider of information through lectures and dispensing charts and resources. Instead, the teacher might be a coordinator of activities, a scheduler of field trips; may make recommendations to students on how they might develop their own charts for their own target population, assist students in understanding how they might develop their own slides that they could use instead of relying on the teacher's slides. The students should be equipped on a field trip to get answers and to photograph certain areas but also recognize the limitations of this particular technique. We also would see that the faculty member might serve as a liaison between the community and the students, assuring the maintenance of a positive working relationship with the community. I personally see the role of the teacher as demonstrating to the community why the class is of value to it, instead of why the community service is of value to the class. Then you get a whole different attitude as far as cooperation is concerned.

Also, it was brought up in the group that they wanted to be very clear which responsibilities were the teacher's and which were the student's. Sometimes it was not clear in reading the modules where the teacher began and ended and where the student began and ended. We also saw that each teacher using MATCHE will have to assess what is feasible for their time and community and that each may be willing to let students go into outlying areas. In some instances, MATCHE would not be used in the immediate college community, but in some community far afield.

There were some good suggestions in terms of using MATCHE. We saw it being used in in-service and hope that student teachers might also be involved in this way. One of the people from CSU, Chico, suggested that MATCHE modules could be used almost as a correspondence course for in-service teachers with follow-up appointments to coordinate the activity. CSU, Northridge, views the housing material in the consumer strand as an essential part of the core for every person in home economics, and that was encouraging to me.

The way that you will utilize the material then, will depend on your existing situation, but I hope you won't throw out the individualized concept. Your willingness to assess where you are, what you have now, and what you might perhaps eliminate should be basic to the use of MATCHE. You should try experimenting yet realize that the key to MATCHE involves individualized competency-based (not lecture) techniques. Any feedback you provide will be appreciated.

Overall, we feel that we are recognizing that the family and shelter are two crisis areas, and home economics really must deal with these crises. If we do not, another discipline will. We have a great opportunity here.

HUMAN DEVELOPMENT

by Dr. John Boogaert

We looked at both expanded and nonexpanded modules. The expanded modules that we looked at were fairly well evaluated. I received good feedback, and I feel that the members of the group will now be able to make some responsive changes in the materials to make them more useful for individual needs. However, I think the most important time that we spent together was working with some of the unexpanded modules. I did not finish all of these modules before this workshop partly because I wanted to get some feedback from the people in the field who are working. We did spend a considerable amount of time on some of these unexpanded modules to make them fit the style and resources that are useful and available. During our discussion, persons in our group were able to spend some time sharing resources.

Our group also expressed the need for cross-referencing of the MATCHE materials. Many modules have units that could be easily taken out and incorporated into another module. I think one of the reasons this has not been done is that the curriculum is still very young and we have to accept that fact. We should assume from the outset that these materials will always be in process--that they will be used as is; revised, expanded and used by others, then revised again. Keeping this in mind will make for a much better curriculum in the end.

Our group would also like to see the whole MATCHE concept expanded. The scope of MATCHE is limited in its initial phase by the funding sources that are available, but that does not have to continue. MATCHE materials can be expanded for use in both the junior college and for the first two years in a four-year university. It could also be expanded to be used in other areas besides teacher education; that, however, depends on what funding is available in the future.

One member of our group suggested that we needed a whole area in the occupational strand working with handicapped children and that is something that could very well fit within the MATCHE module as it is now. However, there are other areas that do not seem to fit into the organization of the MATCHE structure as it is, so I think that there should be time spent in the future expanding the concept of MATCHE as the funds become available.

Our group felt that some objectives need to be reworked. The original MATCHE objectives, upon which the whole curriculum was based, are fairly solid, but some of the others need revising and updating. Revising objectives involves entire reworking of modules, but this again is the process behind the whole MATCHE idea.

Finally, I would like to challenge some of you to become further involved with MATCHE. Perhaps there is a module that needs to be expanded which involves your speciality. Or perhaps you could send especially good references or resources to someone else who is expanding modules. Some of you have now been to three MATCHE meetings and understand the MATCHE process. You know what to look for; you know how it's organized; and you should be quite able to involve your speciality in writing some modules for the MATCHE materials. When funds are available, the administrators of the MATCHE project would like to see those of you who are interested and qualified in specific areas write additional modules.

SUMMARY OF WORKSHOP

by Dr. Margaret McWilliams

When we first heard about MATCHE, it seemed that it was a rather intangible kind of approach to home economics education. Maybe it was a grand idea, but how were we ever going to tie it down and actually be able to use it?

In talking with people during this workshop, I have concluded that you have done a rather remarkable job of moving from this intangible, very global concept to constructing materials that are usable and viable in a variety of individual situations. These materials received very supportive feedback from workshop participants. They recognize that much had been done and are more aware of how they can, as individuals, move ahead with them. So, I think you have made a big step forward in a relatively short time.

I was very pleased to hear a bit about the evaluation that is being undertaken in relation to the MATCHE project. I think from what I was hearing, there is still some concern about the validity of it. I would recommend inclusion of many of the comments made by this group for additional dimensions to consider in evaluating.

In her presentation this morning, Margaret Barkley had a number of suggestions which I thought opened the door for many people to start thinking how they might want to individualize modules even more; how to enhance, how to improvise within the modules that are being developed. Her ideas on developing your own games, on using computer-assisted instruction to a greater extent and on writing more individualized materials were not only ideas on how you could use MATCHE materials, but how you could move ahead toward developing really creative materials yourselves. As I was talking to various people, trying to see how the MATCHE materials might actually be used when we all go back home again, one of the points brought out was that there would be

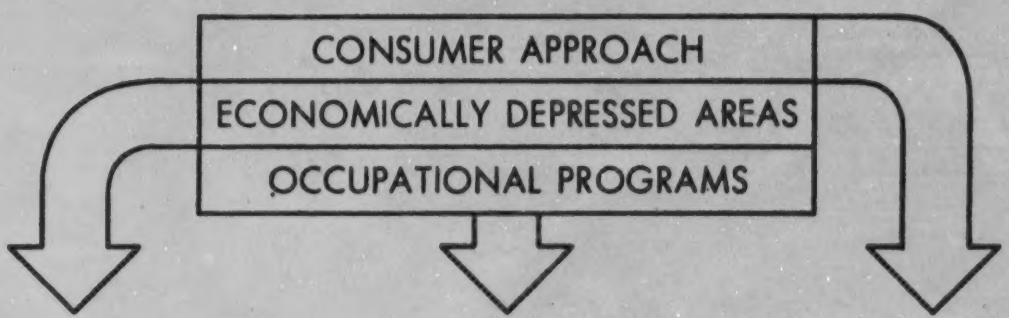
some incorporation of the MATCHE materials and concepts into existing courses. Another thing that probably will happen is that we will have some of the teacher educators recognizing deficiencies within certain students, and then suggesting that a specific module would help strengthen a particular application. These ways of using MATCHE seem to me to go in a slightly different direction from the way that it was envisioned, but I thought that these were also helpful ways of improving our home economics education programs.

Another possibility for these modules, and for the program itself, may lie in the designated subject credential and the plans that we may be making for handling designated subject credential courses. At our school we are not quite far enough into this to identify precisely where these modules might work, but one of the things that seems to be rather clear in considering the designated subject credential and preparation for it is that we have people who will be coming into these programs with widely divergent backgrounds. Perhaps this individualized approach would fulfill requirements which otherwise would not be feasible when setting up a specific course with the normal lecture routine in order to handle small numbers of students. Here, there may be some potential that we have not yet tapped.

One of the overall concerns, and one of the areas that has been touched on by our previous speakers, is that there is, indeed, a great deal of opportunity for reinforcement of learning among these different modules and among the different strands. What we need, perhaps, is a very clear road map to be sure we do not get lost in some of the detours along the way.

MATCHE

MANAGEMENT APPROACH TO TEACHING CONSUMER AND HOMEMAKING EDUCATION



Airport Holiday Inn
Fresno, California
April 5 - 6, 1976

MATCHE II WORKSHOP

PURPOSE: To assess and advise on the expanded modules in Housing and Human Development and to validate the content of this MATCHE curriculum.

Monday, April 5

9:30 – Registration and Coffee – Kauai Room

10:00 – Overview of Workshop – Gwen Cooke

10:15 – Unique and Timely Competency-Based Individualized Instructional Programs – Margaret V. Barkley

11:15 – Take a break

11:30 – Validation Techniques for Curriculum Development – Terry Newell

12:15 – Luncheon

1:15 – Philosophy of Three Strands of MATCHE – Margaret V. Barkley

1:45 – Work Sessions - Analyze expanded modules
CORE – Margaret V. Barkley – Oahu Room
Housing – Pat Hennings – Maui Room
Human Development – John Boogaert – Kauai Room

4:00 – Plans for continuation of group work on Tuesday – Maurine Vander Griend

Tuesday, April 6

8:30 – Strategies of Teaching – Margaret V. Barkley – Kauai Room

9:30 – Work Sessions (continued) - Assess teaching strategies in modules
CORE – Margaret V. Barkley
Housing – Pat Hennings
Human Development – John Boogaert

11:30 – Luncheon

1:00 – Work Sessions (continued) - Validating module content

3:00 – Take a break

3:15 – Group reports – Pat Hennings
– John Boogaert
– Margaret V. Barkley

4:00 – Summary of Workshop – Dr. Margaret Mc Williams

CONSULTANT:	Dr. Margaret V. Barkley, Professor of Home Economics Arizona State University
CURRICULUM EVALUATOR:	Dr. Terry Newell, Associate Professor of Psychology California State University, Fresno
WORK SESSION LEADERS:	Dr. Margaret V. Barkley, Professor of Home Economics Arizona State University
	Dr. John Boogaert, Curriculum Consultant - Human Development Fresno, California
	Mrs. Pat Hennings, Associate Professor of Home Economics - Housing and Interior Design California State University, Fresno
CALIFORNIA HOME ECONOMICS DEPARTMENTS PARTICIPATING:	California Polytechnic State University, San Luis Obispo California State Polytechnic University, Pomona California State University, Chico California State University, Fresno California State University, Long Beach California State University, Los Angeles California State University, Northridge California State University, Sacramento College of Notre Dame Humboldt State University Loma Linda University, La Sierra Campus Mount St. Mary's College Pacific Union College Pepperdine University, Los Angeles Pepperdine University, Malibu Point Loma College San Diego State University San Francisco State University San Jose State University University of California, Davis Whittier College
PROJECT EVALUATOR:	Dr. Vern Halcromb, Director of Vocational Education - In-service Project California State Department of Education
DIRECTOR:	Dr. Gwen Cooke, Chairperson, Home Economics Department California State University, Fresno
ASSISTANT TO DIRECTOR:	Miss Maurine Vander Griend, Adjunct Professor of Home Economics California State University, Fresno
FUNDED BY:	Bureau of Homemaking Education California State Department of Education, Sacramento

APPENDIX B

WHY MATCHE NOW?

by Dr. Alberta Dobry

The assignment given to me has been to answer the question: Why MATCHE now? As I see it, the threefold answer very simply stated is that we have and need MATCHE now (1) because of the changing nature of our society, (2) because of the changing nature of our students, and in response to these factors, (3) because of the changing nature of education.

Changing Nature of Society

The MATCHE idea and materials couldn't have been developed at a more opportune time. The need for such materials is now. If we trace the changing nature of society, the need for a futuristic view toward teacher preparation may be clearly illustrated.

As noted by such people as Florence Kluckhoun, Fred Strodtbeck, and Alvin Toffler, each society has its own attitude toward a time orientation of past, present, or future. A society's time orientation, which is formed in response to the rate of change, is a strong determinant of social behavior and is clearly reflected in the way the society prepares its young for adulthood.

In an unchanging society, the past was carried into the present and repeated in the future. So, the most sensible method of preparing the learner was to provide him or her with the skills of the past--for these were precisely the skills that would be needed in the future. Thus, parents handed knowledge, skills, and values directly on to their children. Knowledge was transmitted through the family, apprenticeships, and religious institutions rather than through specialists in schools.

The key to the success of that system rested with its faith in the past. That faith was shattered with the advent of the Industrial Revolution. Neither the value system, which rested on the past, nor the previous educational system fulfilled the needs of the mechanical age. The most powerful change brought on by industrialization was a shift in time orientation--from the past to the present.

The problem of producing the kind of adults needed for an industrial society was extremely complex. There was a need to pre-adapt children for a new world--one filled with repetitive indoor work, noise, machines, crowded conditions--all of which were regulated by the factory whistle and the clock. The solution which finally emerged was mass education. The entire administrative hierarchy of education modeled itself after the industrial bureaucratic system. Children were well-conditioned for the new industrial society. They marched from one structured discipline to another at the sound of a bell and sat in assigned places.

Right up until the late sixties this type of educational system helped to standardize individuals. Technology also helped to standardize life for us. There was even a certain degree of standardization in our food, clothing, and shelter. Remember that song that was popular some time back that talked about houses made of ticky tacky placed all in a row? And remember back at times past when you were very conscious and careful of wearing the right garment for the occasion? That was all a part of the very standardized life we led.

Such standardization was made possible through one of the advantages of technology which is mass production. Therefore, not only were standardized items readily available but they were promoted. In fact, advertisements served as a giant megaphone extended through popular household magazines such as

Life, Look, and Saturday Evening Post. These magazines died. Why? There would certainly be a number of answers to such a question, but one that stands out is that those magazines were highly standardized. People are becoming more selective and less standardized. Magazines such as Life and Look gave way to nonstandardized reading material. Have you checked the local newstand lately? You will find there are magazines for all kinds of groups. There are special magazines for gardeners, pilots, retired people, apartment dwellers, and so on. All are very nonstandardized.

Thus, instead of a mass culture, we are quickly becoming a destandardized or individualistic culture. The pride that was taken by citizens of our country in being a melting pot has been replaced by the pride taken in one's original heritage.

Standardizing was produced by the industrial society to serve the needs of the industrial society. During the late sixties and early seventies standardizing came to a halt. In its place came the arrival of diversity. And not just in our society, but in societies over the world.

A shift in time orientation from the present to the future has created a need for diversity. In fact, survival of most systems, and especially our educational system, may be dependent upon diversity. The most highly criticized features of education today--the regimentation; the rigid systems of grouping, of grading; the lack of individualization; the authoritarian teacher; and so on--are those things which led to standardization in an age focused on the present. As just pointed out, that age is gone or, at the very least, fading fast.

The Changing Nature of Our Students

Such items as the MATCHE materials can provide diversity. With these materials there is an opportunity for individualization or, if you will,

personalization in education. A personalized approach in education is critical because our learners are no longer as standardized as they once were. Let's consider the somewhat traditional and maybe even stereotyped profile of our majors.

There once was a time when the preservice home economics teacher could have been described as a white, middle-class, single female ranging in age from 17 to 21 or occasionally 22 years of age. The first descriptor that failed to hold true in an increasing number of cases was that of being single. We have had married students on the scene for several decades now and have come to accept them as a matter of course.

Use of the term single doesn't even work anymore. This is somewhat of an aside note, but there was a time when we could use the term single and everyone knew what it meant. The term was highly standardized. Now, when someone identifies themselves as single, we wonder: Does that mean divorced, separated, widowed, or never married? Even the expansion of the concept single is a lowly example of some of the change that has taken place in our thinking. We no longer tend to think in the standardized sense we used to. We tend to think in more destandardized terms.

Continuing our analysis of the description of a preservice home economics teacher, the white and middle-class descriptors seem to go hand in hand. Exceptions to these descriptors became somewhat evident in the mid-sixties with the surge of the equal opportunity movement.

Following closely on the heels of that change was the expanded age range of students that started showing up <u>full-time</u> in our <u>undergraduate</u> courses. The adjustment to this change was easy. We were used to diverse age ranges in graduate level courses, so the change at the undergraduate level was fairly simple to accept. In fact, it crept up on us before we

were completely aware of it. Also noted is that everyone seems to visually appear so young these days that sometimes we aren't even aware of the age differences until we examine the data forms we have on our students.

The Women's Liberation Movement wasn't the only social force bringing an increased age range of students to our classes. The economics force was, and is, a big factor. Further, the economic need is not just due to the higher cost of living, but due to a change in living patterns as well. Many of our students of various ages are single parents. They are the sole breadwinner for the family. This is an increasing trend; particularly in urban areas.

Right now one out of every four urban children is from a family with a single parent. That figure is predicted to rise to one out of every three children in the near future. If our students include the single parents of these children, are we ready for them? Do we accommodate them in our programs? Because many of them come from a variety of backgrounds, have held and do hold jobs while attending school, they have useful and different experiences behind them. Further, they have a very serious need to get into the full-time job market as quickly as possible. How patient are they going to be with repetitive or irrelevant curriculum requirements? Think about it.

The increased age range of our students clearly indicates that educational needs occur throughout various points in a lifetime. What do we do to facilitate easy exit and entry into our programs at different points in time? Wouldn't such things as the implementation of MATCHE materials be a step in the right direction to meet this need?

Finally, we are into the mid-seventies and the last descriptor of our preservice home economics teacher--that of being female--has also lost its validity for our home economics education majors. Those of us in education

applauded when our colleagues in the subject matter areas were experiencing an increasing number of male students. We agreed that what home economics really needed was some men in the field. And, for decades we have promoted the idea of having both males and females enrolled in our secondary programs. But a strange phenomenon seems to take place within us when a male student claims home economics education as his major. I'm not just referring to the occupational aspect here. I mean the consumer and homemaking program area as well. Do we encourage male majors? Or, are we quick to point out to them that the traditional attitude of most school systems will hamper their chances of becoming employed?

If we lean in the direction of the latter, do we do it under the label of honesty? If so, isn't such honesty based on a time orientation other than the future? If we profess that we are preparing students for the future, isn't there some sort of conflict going on here?

One may argue that things won't change fast enough for our male majors. That argument may be a miscalculation. Change has accelerated rapidly. Let's review the rate at which some changes have taken place.

Let's look at some concrete measurable changes. For example, the first English patent for a typewriter was issued in the year 1714. However, it took a century and a half before typewriters became commercially available.

As further illustration, Robert B. Young studied the span of time between the commercial appearance of new electrical appliances and the time the industry manufacturing it reached its peak production of the item. He found that appliances such as the vacuum cleaner, the electric range, and the refrigerator, which were introduced in the United States before 1920, took an average time span between introduction and peak production of 34 years. For items such as the electric fry pan, washer-dryer combination, and

television, which appeared during the 1939-1959 period, the span between introduction and peak production of each item was an average of eight years. This is a lag shrinkage of more than 76 percent.

Consider for yourself such an item as the hand electronic calculator. When did you first hear about it? How easily accessible is it now? Only a span of a few years between introduction and peak production took place on that item. Thus, we might exercise some caution on hasty predictions concerning the rate of change.

One might argue that rapidity of change might be true for products but not so for attitudes. I wonder. Wouldn't it take an attitudinal change toward the new products to allow industry to successfully go into peak production on the items? Wouldn't our measure of change on the concrete items serve as an indicator of attitudinal change?

We might examine some changes that could be clearly categorized as attitudes as well. Take, for example, the attitude toward divorced women in general. It took decades to come up with an accepting attitude toward divorcees. Or, how about the change in attitude toward premarital pregnancy? Do we go into instant shock and continue to automatically think that immediate marriage is necessary? No, we ask things like: Is she going to keep the baby, have an abortion, or what? Our response isn't the same as it once was, and it certainly isn't standardized anymore. It took decades, but we even acquired so accepting an attitude that we encourage pregnant, unmarried students to complete their education. Such encouragement was unheard of 15 years ago.

More recently, for example, let's consider the idea or attitude toward couples living together without benefit of a marriage license. This alternate living style has been selected by a sizeable number of people within the past decade. In a general sense, what has happened to your own attitude

toward the idea? About five years ago, when someone told us about such a couple, didn't we tend to respond with something like: "John and Mary -- You've got to be kidding!" Now, five years later, what's our response to the idea? Isn't it something like: "Oh, really?" Thus, attitudes do change, and more rapidly than they used to. Therefore, in terms of attitudinal changes, male home economics teachers may be accepted into secondary school situations sooner than one would guess.

All in all, the conclusion concerning the traditional definition of our majors is that our instructional target group of learners is no longer as clearly definable as it once was. They no longer come to us in a uniform standardized package. And, because they are not only different individually but collectively as well, so too must our curriculum be different. The curriculum must be more fluid to allow for personalization and individual differences.

By the way, the connotation of individual differences has even undergone change. Before, we did a good job of focusing in on individual differences in learning styles, but the differences that exist now are much more complex, as the preceding discussion attempted to point out. There are differences in types and varieties of experiences, backgrounds, ages, sex, personal life-styles and attitudes. And, most of all, there is a difference in time orientation.

Changing Nature of Education

There is a distinct need to move to a more living and fluid curriculum. But like all fluids, it must be contained in some way to be controlled or managed. Thus, there must be some structure to a moving or flowing curriculum. This is an extremely large challenge. There has been an attempt to meet this challenge on the part of educators as noted by the surge of the alternative schools movement which marked the beginning of the seventies.

This movement has been paralleled by the development of alternative teacher training programs. Experimentation with alternative plans for the education of both student and teachers has gradually grown out of the fact that our population has become more diverse yet preponderantly urban. The steady progression of urbanization in our society has increased the complexity of the problem of meeting the diverse needs and interests of all participants in the majority of our educational settings. This does not mean that rural sectors no longer exist. But it does raise a concern for the question of relevance in home economics teacher education programs.

In looking specifically at home economics, we find that at its inception home economics was closely allied with agriculture and its rural orientation. Continued allegiance to this orientation has caused increasing concern among leaders in the field. As pointed out by Earl McGrath (1968):

> Teachers and administrators within the field, as well as individuals outside, share a concern that the content and philosophy of home economics have not adequately adjusted to population shifts from rural to urban environments....

The needs and interests of students vary in different schools and communities. In addition, the organizational structure of the school, the number of outside influences on curriculum, and the resources and facilities that a teacher has at her disposal also vary with the size and orientation of different schools and communities. Thus, the coordination of, the preparation for, and the placement of a teacher into a particular situation will have a great deal to do with that teacher's success in implementing a relevant curriculum. As Marvin Ack (1970) pointed out, the way in which a person behaves in any given situation is the product of that situation and his past experiences. If one considers that teacher preparation is part of a teacher's past experience, then special attention to the nature of that

experience is warranted for the promotion of optimum professional behavior. As emphasized by Ack:

> The more complex the circumstances and the more average the person, the more we can expect that his response will be dictated, in large measure, by his past rather than what is really happening now. Therefore, we must be concerned with what kind of model we present as an individual or as an institution, and what kind of experiences we expose him to.

The abundance of literature in the field of teacher education provides ample evidence that teacher effectiveness and teacher behavior have been a vital concern for some time. Unfortunately, much of the literature consists of opinions unsupported by research data. Further, the existing research, focused on analyzing the success of teacher education programs, has raised more questions than it has answered. The current status of the concern has been described by B. Othanel Smith (1971) when he stated that:

> It is barely four decades since the first empirical studies of teacher education were made.... Since that time a large number of such studies have been made. How many is anyone's guess, but enough to fill a handbook of research on teaching and to justify a revision of it. Yet we keep asking ourselves how much dependable knowledge do we have with which to build more effective programs of teacher education? Some critics, viewing the mountain of data interpreted by statistical techniques--standard deviations, coefficients of correlation, regression equations, and what have you--exclaim that there is less here than meets the eye.

But I hasten to add, that doesn't mean that we should put our present programs into a hold pattern.

This general evaluation of the status of teacher education is supported by specific concerns such as the one expressed by Foster (1968). He pointed out that according to the latest reporting we have neither been able to educate the disadvantaged urban Negro child nor have we been able to train

and retrain teachers for inner-city schools. Additional concerns have been expressed throughout the literature for meeting the needs of the culturally disadvantaged and the educationally disadvantaged in both rural and urban areas. McGrath (1968) elaborated on this point when he stated:

> We ought to consider the relationship between home economics and the social revolution occurring in our society. No documentation is needed to justify the statement that the causes of the present turbulent disturbances lie in the conditions of life among the underprivileged, the minority groups, the undereducated, the inadequately housed and fed, and to a large extent those who live in the center city....The purpose... here is to state unequivocally and clearly that...in the improvement of education, housing, health, welfare, the family--in all these areas of living and many others as well--the home economics have an obvious and, in some respects, a unique contribution to make.

The basic concern in teacher education revolves around a reflection of relevance in the curriculum for today's students. That curriculum has been criticized as being somewhat pedantic and suggests a need for some investigation concerning the process of curriculum planning.

Several proposals have been set forth for change in home economics preservice teacher education programs. Alberta Hill (1970) proposed that the selection of preservice experiences could be based on the personal data of the prospective teacher. Each prospective teacher would be programmed into practical professional experiences appropriate for his or her individual background, abilities, and aspirations. In contrast, Marion Minot (1970) has recommended that future home economics teachers be given preservice options of an in-depth concentration of work in one problem area. This approach was envisioned as a way to release the field from the trap of the status quo and free it for making changes toward the types of programs which would fulfill projected needs.

In discussing teacher education programs, Elizabeth Ray (1970) suggested the need for a dynamic approach:

> Differentiation is needed; exploration and experimentation are to be valued; a sense of openness to change is essential. Yet what the field needs most is differences which makes a difference. Needed are qualitative differences in the teaching that goes on in home economics classrooms. Needed is teaching that adds up to qualitative differences in the lives of children taught in those classrooms.

Looking at another perspective, Mary Lee Hurt (1969) attested that changes in home economics programs in secondary schools are dependent upon changes in preservice teacher education programs and expansion of in-service help for teachers. Focusing on such a goal, Hill (1970) set forth a strong charge to home economics teacher educators when she said:

> Assuming we do have a body of content and can define teaching behavior, then it seems reasonable to expect us to teach teachers to perform successfully, not to get through courses or earn credits for renewal of teaching certificates.

Reflecting on the problem of program change, we note that it tends to be frustrating. Some aspects of this problem have been expressed by Minot (1970) when she asked:

> In making a change such as this where do we start? Do we start with college classes? The program assumes that college courses must be focused upon the problems of man and his environment and that faculty teach from a multidisciplined point of view. Do we start with high school programs? It is doubtful that a restructuring of courses in the high school will evolve without teachers who have appropriate background for the new tasks created by reorganization. Do we start with certification requirements? Most states still require X number of hours in each area of home economics. Or, do we start with teacher preparation? A systematically planned change on all fronts would have the greatest impact.

> It is the responsibility of educators in home economics to take the necessary leadership and initiate such a change.

It seems that there is no doubt that responsibility for initiating widespread program change lies with teacher preparation institutions. Further, in order to plan systematic changes in teacher education, identification of the types of school situations in the future with which teachers will be faced is an essential prerequisite to considerations for effective changes.

Teacher education must be viewed and approached as an ongoing process which is personalized or individualized to different needs in preparation for the instructional role. Acknowledged is the fact that this philosophy has long been espoused in teacher education, but the contemporary scene intensifies the necessity to transfer the philosophy into practice. Continuous and rapid societal change with concurrent changes in demands placed upon teachers in addition to expanding variations in the instructional settings in which teachers may find themselves point to the conclusion that to improve teachers' impact on learning there have to be changes in teacher performance.

All of these forces emphasize the need for implementing a fluid, living, individualized approach to teacher education. Both in-service and preservice teachers need a continuing means of acquiring those competencies that they individually find necessary to fulfill their changing instructional roles. Due to such restraints as time, money and instructional resources, the ideal--a totally individualized instructional system--may never be reached. Even if a teacher had only one student, that teacher could not provide totally individualized instruction in its strictest sense because of the inability to identify all of the learner's individual needs and to

make the appropriate provisions for meeting those needs. Nevertheless, individualized instruction does serve as a desirable goal to work toward.

There have been efforts toward this goal during the last two decades. Many of the innovations have already undergone evaluation and seem to be educationally sound. One of the earliest attempts to meet individual needs was programmed instruction. Essentially, the early efforts were pencil-and-paper programs designed to teach small segments of subject matter. The research conducted in the mid to late fifties by such people as Skinner with the linear technique, and Crowder with the branching technique led to the identification of several teaching principles which became characteristic of programmed instruction. These were (1) small steps, (2) active student involvement, (3) immediate feedback, and (4) self-pacing.

As we moved into the sixties, a new development was underway when Postlethwait began to supplement the instruction in his freshman botany course at Purdue University by using audiotaped presentations. By the end of the decade he had developed an audiotutorial approach which was structured around a self-instructional learning carrel. His system incorporated objectives, audiotape, printed study guides, visual aids, and actual biological materials. In addition, there were teaching assistants to help studnets in grasping complex concepts.

In 1968 Postlethwait proposed the concept of a small unit of subject matter which could be treated coherently as an individual topic and could be conveniently integrated into a program of study. These instructional units or small courses came to be known as mini-courses. In fact, a conventional course could be constructed from a series of mini-courses. The length and content of the mini-courses varied depending on the objectives set for them. Since 1969, when mini-courses were introduced to Purdue

University, the idea has spread to other institutions of higher learning and to elementary and secondary instititions as well.

Thus, educational change can be traced through the emergence of programmed instruction in the fifties; the audiotutorial approach in the sixties; and the design, development, and utilization of the more complex mini-courses in the seventies. Fairly rapid developmental change for education, wouldn't you agree?

Recent years have witnessed other similar small units of instruction, usually referred to as modules. A few examples include: the "concept-o-pac," "instruc-o-pac," "unipak," "learning activity packages, or LAP" as they are popularly called. There are also individualized learning packages, HELPs and now MATCHE.

The primary advantage of instructional modules is that they provide the opportunity for each student to learn selected subject matter in his or her unique way. Modules such as the MATCHE materials can help to restructure teacher education in home economics. The restructuring of teacher education is what it is going to take to meet the expectations of our increasingly complex society and our nonstandardized student body.

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APPENDIX C

HOW MATCHE CAN BE USED

by Dr. Alberta Dobry

Before we look at various alternatives for implementing MATCHE materials in our programs, let's briefly review what it is we are thinking about implementing. The generic term which is most frequently attached to individual units of instruction such as the MATCHE materials is module. To clarify communication most terms come with definitions, and the term module is no exception.

James Russell (1974) broadly defined a module as an instructional package dealing with a single conceptual unit of subject matter. The Goldschmids were somewhat more specific in their definition. They defined a module as a self-contained, independent unit of a planned series of learning activities designed to help the student accomplish certain well-defined objectives.

Whether one chooses the broad definition, the specific definition, or something in between depends on the particular program perspective. However, in all cases modular instruction is an attempt to individualize learning by enabling the learner to master one unit of content before moving to another.

Modules allow for differences in levels of achievement, rate of learning, and learning goals in various ways. Frequently, the multimedia learning experiences are presented in a self-instructional format. The student masters the material at his or her own rate. Many module packages may include materials which are portable. Thus, the learner may have the opportunity to choose the library, a study carrel, or home as the learning environment. The length of modules may vary from a few minutes to several

hours of learning time depending upon the nature of the learner, the objectives, and the material. Modules may be used independently, or they may be combined into a sequential series or into a random set of conceptual units.

One of the big advantages of modules is that they are highly conducive to revision, reorganization, deletion and so on--so necessary with new knowledge coming in as fast it does. Another advantage of modules is that they lend themselves to the utilization of a wide variety of media which optimizes instruction on a given topic. Some examples include the following:

A. PRINTED MATERIAL

Reading textbooks, articles, and abstracts

Examining charts, diagrams, drawings, and photographs

B. PROJECTED MEDIA

Viewing films, filmloops, slides, videotapes, overhead transparencies, and microfilm

C. AUDIO INPUTS

Listening to records and audiotapes

Attending speeches and hearings

D. REAL OBJECTS

Handling real materials, objects, and models

Studying demonstration materials and specimens

E. HUMAN INTERACTION

Discussing subject matter with other students, teachers, or resource persons

D. and E. REAL OBJECTS AND HUMAN INTERACTION

Conducting actual or simulated experiments, demonstrations, surveys, and interviews

Modules also have a number of positive features which maximize individual fulfillment. Experiments with modules have shown them to be highly adaptable to a wide range of subject matter, numerous learning strategies, and various learner needs:

Modules are individualized. Modules may be either highly individualized or they may be used to provide uniform instruction for a large number of students on an individual basis. Some students may pretest out of certain modules while others work their way through a given set. There may be alternative modules which deal with different content OR different approaches to the same content may be provided. With the latter, the student may choose the alternative suited to him or her. If you have students from different majors in your classes, the use of alternative modules for the different majors could help meet the various needs.

Modules are flexible. There is flexibility for both the learner and the instructor. Arrangement and sequencing may be varied depending on the nature of the variables involved. In some cases students may have the option of selecting a given number in a set or series of modules. The use of pretests will help determine what is needed and what is not.

Modules provide freedom. The learner is free to master the material at his or her own pace without being forced to move to new material prematurely. There is one caution, however, with learners low in self-discipline. Both the teacher and the module need to provide an optimum learning environment to inspire students to maintain their involvement in the learning process. With the use of modules, the burden of learning is squarely placed on the learner. Some learners haven't learned to handle such responsibility.

Modules include active participation. This follows the principle that students learn by doing. To keep students actively involved is a primary

focus of modules. Modules allow the teacher to become more of a resource to the learner. With the use of modules the teacher functions in the more important activities of teaching--inspiration, encouragement, motivation, orientation, and personal contact. The teacher serves as resource person, diagnostician, and prescriber in terms of module usage.

Modules provide student interaction. Student-to-student interaction can be part of the module design. In fact, students should be encouraged to work together on complex learning activities. Modules may also be open-ended. This allows for the student to set his or her own direction in terms of the topic.

The specific characteristics of modules closely parallel the preceding features. Not all modules contain all of the characteristics, but generally most include the following:

1. Self-contained, self-instructional units
2. Provision for individual differences
3. Well-defined objectives
4. Structure and sequence of knowledge
5. Use of a variety of media
6. Active learner participation
7. Immediate feedback to responses
8. Mastery assessment strategy

One could use different terms or further elaborate on the module characteristics, but those above essentially include the basic components.

The flexibility of modules allows one to use them in a number of alternative ways or to select from among the alternatives and use them in one way. A few of the alternative uses include:

1. Incorporate the modules into the present course structure. (This

choice allows for the quickest adoption because there is seldom a need to go through the curriculum approval system with this choice.)

a. One could incorporate modules as a supplement to the courses. If a class ordinarily meets three times per week, then maybe an adjustment could be made to meet twice a week with the class as a group. The remaining class time for the week could be devoted to individual students working on MATCHE modules. Some situations might find it more suitable for two to three weeks out of the term to be devoted to selected modules with the rest of the time operating on a "business as usual" basis. Another possibility is that the objectives might be such that course time to MATCHE materials would be sporadic. Any combination is possible.

b. Another approach would be to use the modules as a major portion of a course and supplement the modules with regular class activities.

2. If the objectives match, one could substitute various MATCHE strands or parts of any one or a combination of strands for existing courses. (Like the preceding choice, there should be no need for going through curriculum channels in most universities with established course numbers and objectives already approved.)

3. Another alternative would be to revamp the program and create new or revised courses using the MATCHE modules.

a. One could think in terms of operationalizing the modules within the regular time frame.

b. Devising a series of mini-courses is another option. The mini-course approach could be incorporated in much the same way that secondary schools implement modular scheduling. Most university class time schedules allow for such.

c. The block plan appraoch is another consideration. If a program is already on a block plan of concentrated professional development courses, then the modules could be easily utilized within the block framework.

Before deciding on any one alternate plan, the first step, of course, is to reexamine the teacher preparation program goals in conjunction with the program activities. Then compare the MATCHE objectives with yours to arrive at your curriculum decisions.

Once the basic curriculum decisions have been made, then there are some very practical aspects to take into consideration when determining how to implement the system decided upon. Some topical considerations for general systems planning in teacher education include the following:

1. System Constraints
   - Time limitations (quarters, semesters, four-year programs)
   - Facilities (on campus, in the community)
   - Relationship to other systems (programs, courses, other majors, minors, etc.)
   - Graduation requirements
   - State certification requirements
2. System Resources
   - Materials (software)
   - Hardware (equipment)
   - Physical facilities
   - Human resources
   - Program budget
3. System Management
   - Scheduling
   - Organization of resources (space, equipment, etc.)

Coordinating efforts between staff and students

Recruiting technical assistants and support personnel

Provisions for counseling/conferences

Materials development, revision, and reproduction

Research on effectiveness

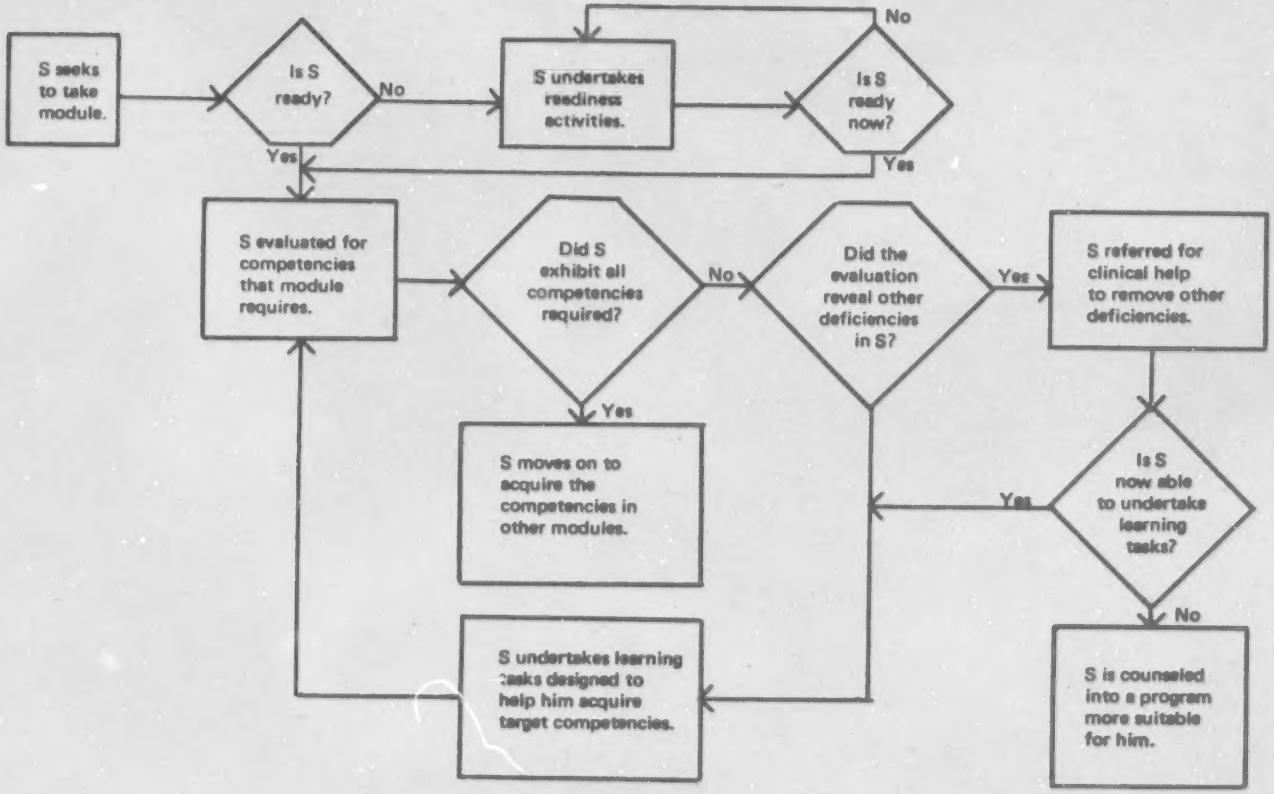
When teacher education is viewed as a system, program management can be viewed as a subsystem. Management's concern is the well-being of the entire system. As with all systems, it too has inputs and outputs. The inputs are organizational problems. One such problem might be that of transfer students. Other problems might be determination of credit allocation, use of pass/fail versus regular grading procedures, and requests for incompletes or time extensions. The outputs are the organizational solutions which are best handled by establishing decision rules for particular situations or questions that come up and through the establishment of policies for each class of problems.

The primary managerial function would be to see that everything is provided so that the learner may move through the learning process. One way to set up this process has been illustrated on the flow chart entitled "Schema for Individualized Learning Process." (See Figure 1.)

Using a process similar to that illustrated in the flowchart, the teacher becomes a manager of learning specializing in designing, implementing, and evaluating the program. With this focus the emphasis is on program outcomes, preservice teacher behaviors, and operationalizing procedures and techniques.

Depending upon the way you plan to implement the MATCHE modules in your program, you may find a need for additional personnel. No doubt the budget isn't going to be increased to include added faculty on your staff. A solution might be to use students in instructional roles.

SCHEMA FOR INDIVIDUALIZED LEARNING PROCESSES[1]


S seeks to take module.
Is S ready?
No
S undertakes readiness activities.
Is S ready now?
No
Yes
Yes
S evaluated for competencies that module requires.
Did S exhibit all competencies required?
No
Did the evaluation reveal other deficiencies in S?
Yes
S referred for clinical help to remove other deficiencies.
Yes
S moves on to acquire the competencies in other modules.
Is S now able to undertake learning tasks?
Yes
No
S undertakes learning tasks designed to help him acquire target competencies.
S is counseled into a program more suitable for him.

[1] Dan W. Anderson, et al. Competency Based Teacher Education: 1. Berkeley, Calif.: McCutchen Publishing Corporation, 1973. p. 93.

Figure 1.

If you need a course assistant and have a graduate program, a graduate assistant would be a help. If proctors or teacher aides are needed, then why not use undergraduates who have been through the modules? Use a credit option rather than salary. Perhaps there is an established avenue to facilitate this, such as through an independent study or special topics course. This provides a very good learning experience for the students and keeps your budget free since this way the students would receive credits rather than salary. If an undergraduate teacher aide program is established, then there might be a need to set up an application system to control the number of applicants and possibly the qualifications of applicants.

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APPENDIX D

CONTENT VALIDITY OF MATCHE MODULES

March 1976

As part of our evaluation of the MATCHE project we are interested in the content validity of the MATCHE modules. Content validity refers to the adequacy of the content of the module as rated by knowledgeable individuals in the area of home economics. After reading the module we would like you to complete this questionnaire for each module. Circle your response to each item. At the end of the questionnaire there is room for your written comments.

MODULE NAME_____

YOUR NAME_____ POSITION_____

INSTITUTION_____

Part I: Behavioral Objective

1. Indicate your evaluation of the behavioral objective which forms the basis of the module.

Clearly stated		Adequate		Vague
5	4	3	2	1

2. How important is mastery of this objective for future home economics teachers?

Very		Somewhat		Not at all
5	4	3	2	1

Part II: The following questions concern the text and narrative summary of the module:

3. Organization of the module

Excellent		Good		Poor
5	4	3	2	1

4. Length of the module

Too long		About right		Too short
5	4	3	2	1

5. Vocabulary level of the module

Too difficult		About right		Too simple
5	4	3	2	1

6. References used in module

Readily available		Available		Not available
5	4	3	2	1

7. Appropriateness of suggested use of references

Excellent		Adequate		Poor
5	4	3	2	1

8. Activities suggested by modules

Too many		About right		Too few
5	4	3	2	1

9. If you were to use this module, approximately what percentage of the suggested activities do you think you would use?

100%	75%	50%	25%	0%

10. Range of activities

Too broad		About right		Too narrow
5	4	3	2	1

Part III: These questions concern the pretest posttest

11. The module pretest is:

Too difficult		About right		Too easy
5	4	3	2	1

12. With respect to the number of items in the pretest:

Too many		About right		Too few
5	4	3	2	1

13. With respect to scoring the test:

Too difficult		About right		Too easy
5	4	3	2	1

Part IV: In general:

14. If a student completes the module and passes the posttest, how well do you feel the student would meet the behavioral objective?

Excellent		Adequate	Marginally	Could Not Meet
5	4	3	2	1

15. Would you use the module in its present form?

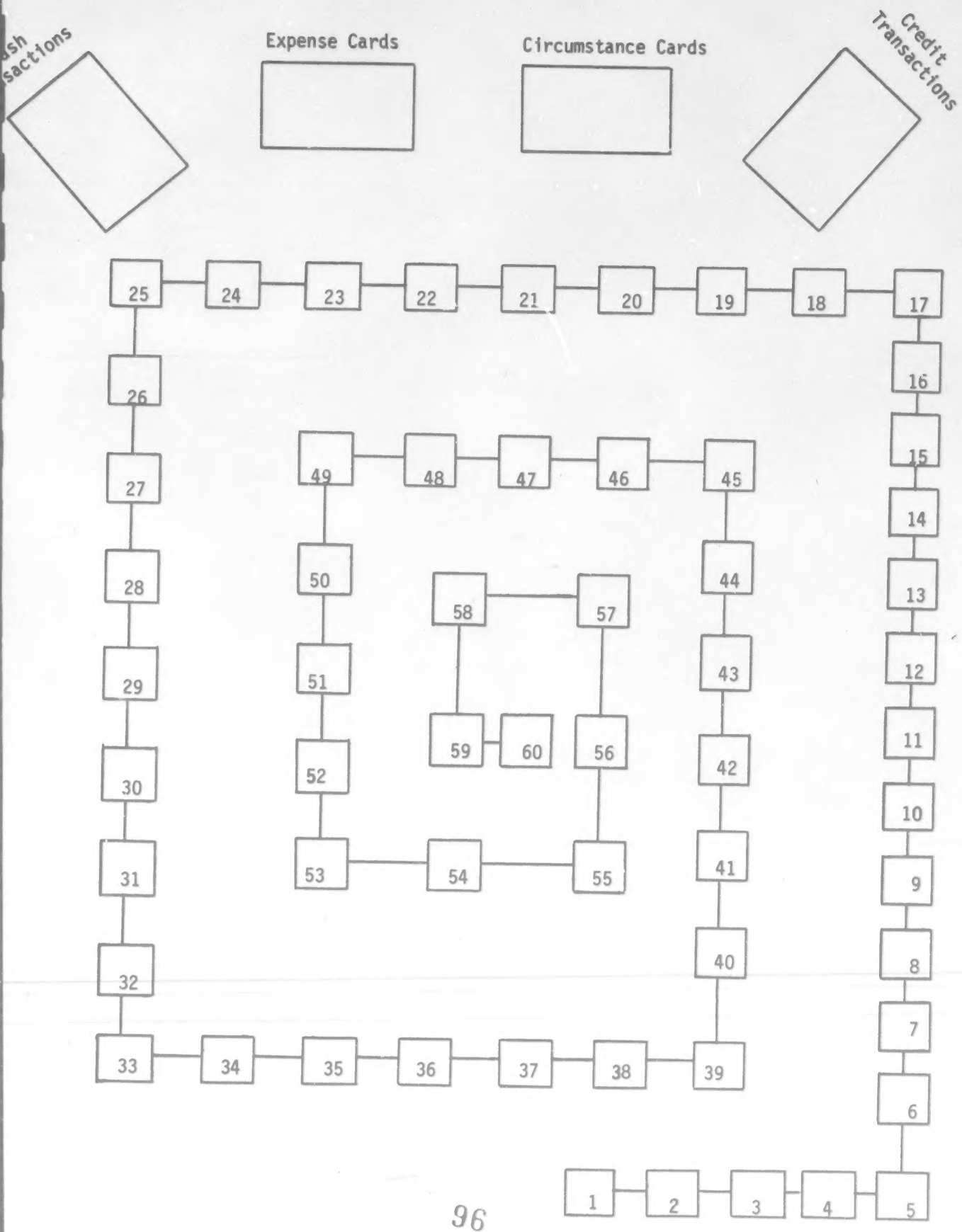
Definitely yes	Probably yes	Not sure	Probably not	Definitely not
5	4	3	2	1

Comments:

Text of Module:

Text:

APPENDIX E
Game: Credit World



APPENDIX F

WHAT WOULD YOU DO?

Jim and Betty, high school seniors, had gone steady for a year and plan eventually to marry. Both sets of parents had tried to break up the relationship because they were from different ethnic backgrounds, including religious affiliations. They still see each other regularly although Jim does not pick up Betty at her home and she does not interact with his parents.

Since both Betty and Jim plan to go to college next year, Jim insists that they make plans to go to the same school and live in an apartment together. He says that they will marry after college, and both of them can work part time to pay the rent. If they marry while in college, neither parents will contribute toward their education. Betty has been awarded a full-tuition state scholarship, and Jim is hoping for an athletic one. If he does not receive an athletic scholarship, he is sure he is eligible for at least a loan because he is from a minority group and has slightly above-average grades. He wants Betty to give him an answer soon because he plans to put a deposit on the apartment in May so they can be assured of one in the fall. He is even suggesting that they work in the area this summer and take one class each in summer school.

What do you think Betty should do?

Problem-Solving Chart:

Facts Known	Information Still Needed	Issues and/or Values Involved	Possible Decisions That Could Be Made	Pos. Consequences of Decision Made

What decision would your group make and why? If you want to put some "if's" or "stipulations" in your decisions, put them down.

RATING DEVICE FOR PARTICIPATION AS A GROUP MEMBER

Fill in type of task accomplished in the group _____

Write the appropriate number of rating under each group member.
1 is Excellent; 2 is Good; 3 is Fair; 4 is Poor; and NA is not applicable.

	Self Name_____	Member 2 Name_____	Member 3 Name_____	Member 4 Name_____	Member 5 Name_____
A. Has appropriate subject matter background.	_____	_____	_____	_____	_____
B. Brings special equipment and needed materials to group meetings.	_____	_____	_____	_____	_____
C. Listens to ideas of other group members.	_____	_____	_____	_____	_____
D. Is task-oriented in group meetings.	_____	_____	_____	_____	_____
E. Supports other group members with ideas, resources, and cleanup.	_____	_____	_____	_____	_____
F. Completes own portion of assignment or task on time.	_____	_____	_____	_____	_____
G. <u>Other behaviors</u>:					

APPENDIX H

John and Mary Fix Their Home

Performance Objective: Analyze tasks which must be accomplished in order to make a home safe and livable.

John and Mary have a limited amount of money and have an opportunity to buy Mary's grandmother's five-room house for back taxes from the estate for $3,000. The neighborhood is good, but the house is quite run-down. Over and above their monthly payment they can spend $100 a month fixing up the house. Read the list of tasks below and decide what should be done first, second, third, and so on. Also indicate what they should do themselves and what should be done by a competent craftsman. (The students may fill this out as a pretest and then obtain approximate costs to validate their ideas.)

1. The furnace looks rusty but still runs.
2. The cooler needs replacing.
3. Walls are dirty and need painting. Walls are dark in color and make the house appear gloomy.
4. The kitchen linoleum is worn and needs replacing.
5. The ceiling in the living room has brown spots on it.
6. The wiring is bare in spots in the storage room at the back of the house.
7. The boards on the back porch are loose.
8. The gas heater vent is rusted.
9. The plaster is loose in a spot in the storage room.
10. A place for the baby due needs to be fixed up in the next six months.
11. The windows rattle because the putty has fallen out.
12. The tile is dirty and stained in the bathroom.
13. The woodwork is badly scarred in places.
14. The sink drains slowly.
15. A closet needs to be built.
16. The paint on the outside of the house is peeling.

Task Number	Approximate Cost	Month	Craftsman or Themselves

APPENDIX I

INTERLINEAR DEVICE

This technique means that the student evaluates the statements for truth and changes any of the erroneous material, adding words or phrases or changing statements until they are correct. Here is a situation that may be used:

(1) Tom, 18, saw an ad in the newspaper for a tire sale, so he decided to go see about tires, for they were cheaper than any he had priced. (2) Before he went shopping, he decided to look up the off-brand name in the Changing Times at the public library and read about the properties expected of quality tires. (3) Although the brand had not been tested in the laboratories of Changing Times, he decided that he might not have to buy a national brand of tires if he knew the qualities he desired in them. (4) Tom went to the newly established store and asked to see the tires. When he started asking questions, the salesman suggested that he would not want them but would need a better quality. This selling technique is known as "bait and switch." (5) Tom ended up buying tires in the next price range and paid $30 down and signed a contract to pay $15 each month for six months. The contract stated that the tires were guaranteed for 5,000 miles with reasonable care. (6) Three days later, Tom had a blowout on one of the tires, and he took it back and asked for a new tire. The firm refused his request on the basis that teenagers don't drive carefully. (7) Tom became angry and said, "I'll bring back the other three tires, and I'll not owe you anything for I have already paid enough for one tire." He changed to his old tires and took them back and dropped them off. (8) He decided to call the Chamber of Commerce and register a complaint against the firm. (9) Three

months later he had a collection agency threaten to sue if he did not pay his bill for the tires. He then decided to make an appointment with the Small Claims Court.

Look over each sentence and see if you can find the errors and change them. Then list five sound practices Tom used in buying tires. How should he change his consumer behavior if he were to buy something again?

APPENDIX J

MATCHE II*

Seminar Program

1976 Seminars

9:30	-	Coffee
10:00	-	Purpose of Seminar - Dr. Gwen Cooke Introduction to MATCHE - Maurine Vander Griend
10:45	-	Module Development Presentation of Housing Modules - Mrs. Pat Hennings Participants' Response
12:15	-	Luncheon
1:30	-	Module Development Presentation of Human Development Modules - Dr. John Boogaert Participants' Responses
2:30	-	Work Session Housing Modules - Mrs. Pat Hennings Human Development - Dr. John Boogaert
4:00	-	Next Steps - Dr. Gwen Cooke

*Project coordinated by Home Economics Department,
California State University, Fresno
funded by Bureau of Homemaking Education,
California State Department of Education

APPENDIX K

MATCHE II Seminar
San Francisco
March 9, 1976

	School	Telephone
Ambs, Esther	Pacific Union College, Angwin 94508	707-965-6327
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Eighme, Mary Marg.	Pacific Union College, Angwin 94508	707-965-2840
Gylling, Margaret	San Jose State U.	408-277-3127
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Heaton, Jean	San Francisco State U.	415-469-2458
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Leach, Rosemary	Skyline College 3300 College Drive, San Bruno 94066	355-7000 Ext. 183
Luehning, Gertrude	San Francisco State U.	415-469-1219
Nygren, Maie	San Francisco State U.	415-469-2081
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Sawyers, Betty	Purdue Univ.	
Schwartz, Pauline	San Jose State U.	408-277-3127
Tacionis, Frances	Cal. State Univ., Chico	895-6260
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Watson, Jean	San Jose State U.	408-277-3123
Whiting, Leah	San Jose State U.	408-277-3130

APPENDIX L

MATCHE II Seminar - March 25, 1976 - California State Univ., Long Beach

Name	Preferred Address	Phone
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Trow, Ruby	6741 Hillside Lane Whittier, CA 90602	work - 714-598-4457 home - 213-693-7329
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APPENDIX M

MATCHE II Workshop - Airport Holiday Inn, Fresno - April 5-6, 1976

Margaret Barkley
Arizona State University
Tempe, Arizona

Ann Bauer
Cal. State U.-Fresno

Doris Beard
Cal. State U.-Sacramento

Alyce Blackmon
Cal. State U.-Northridge

John Boogaert
Cal. State U.-Fresno

Mary Byers
Loma Linda-La Sierra

Gwen Cooke
Cal. State U.-Fresno

Kay Cooley
Cal. State U.-Chico

Sandy Crabtree
Cal. Poly. State U.-
San Luis Obispo

Mary Margaret Eighme
Pacific Union College

Victoria Feinberg
Cal. State U.-Northridge

Audry Gieseking
Cal. State U.-Los Angeles

Vern Halcromb
Cal. State Dept. of Education

Fran Harkins
Cal. State U.-Fresno

Jean Heaton
San Francisco State U.

Pat Hennings
Cal. State U.-Fresno

Suad Kesler
Cal. State U.-Long Beach

Chungsoon Kim
San Jose State U.

Rosemary Leach
Skyline College

Joan Martin
San Diego State U.

Margaret McWilliams
Cal. State U.-Los Angeles

Terry Newell
Cal. State U.-Fresno

Maie Nygren
San Francisco State U.

Myrna Plumles
Pacific Union College

Barbara Pratt
Chancellor's Office
Community Colleges

Paul Rosel
Loma Linda U.

Barbara Simons
Pacific Union College

Elveda Smith-Nury
San Jose State U.

Gay Soldat
Cal. State U.-Long Beach

Louise Sutton
Cal. State U.-Northridge

Frances Tacionis
Cal. State U.-Chico

Roine Thorup
Cal. State U.-Los Angeles

Ruby Trow
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Maurine Vander Griend
Cal. State U.-Fresno

Jean Watson
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Mary Weaver
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Sylvia White
San Diego State U.

Leah Whiting
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